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     (FILE 'HOME' ENTERED AT 11:14:14 ON 28 MAY 2009)
    FILE 'CAPLUS' ENTERED AT 11:14:27 ON 28 MAY 2009
L1
             1 S US20080234483/PN
               SELECT RN L1 1-
    FILE 'REGISTRY' ENTERED AT 11:14:42 ON 28 MAY 2009
L2
             5 S E1-5
L3
             3 S L2 AND NRS>1
    FILE 'CAPLUS' ENTERED AT 11:15:52 ON 28 MAY 2009
L4
           380 S L3
           ANALYZE L4 1- RN HIT : 3 TERMS
L5
    FILE 'REGISTRY' ENTERED AT 11:19:19 ON 28 MAY 2009
L6
           1 S 103745-39-7/RN
L7
             2 S L3 NOT L6
    FILE 'CAPLUS' ENTERED AT 11:19:41 ON 28 MAY 2009
L8
           350 S L6
            45 S L7
L9
L10
            15 S L8 AND L9
L11
            45 S L10 OR L9
L12
           335 S L4 NOT L11
        127243 S HYDROCHLORIC ACID
L13
L14
         9561 S HYDROBROMIC ACID
L15
        110585 S PHOSPHORIC ACID
L16
        169836 S SULFURIC ACID
L17
       252420 S ACETIC ACID
       99302 S CITRIC ACID
L18
L19
        39328 S TARTARIC ACID
      104502 S LACTIC ACID
L20
L21
        44827 S SUCCINIC ACID
L22
         23044 S FUMARIC ACID
L23
        33691 S MALEIC ACID
L24
        10207 S METHANESULFONIC ACID
             0 S L12 AND L13
L25
L26
             0 S L12 AND L14
L27
            1 S L12 AND L15
L28
            1 S L12 AND L16
L29
            1 S L12 AND L17
L30
            2 S L12 AND L18
L31
            0 S L12 AND L19
            0 S L12 AND L20
L32
L33
             0 S L12 AND L21
L34
             1 S L12 AND L22
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L35
L36
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        717178 S (THIOCYANIC ACID OR BORIC ACID OR FORMIC ACID OR ?ACETIC ACID
L37
L38
            16 S L12 AND L37
L39
            18 S L27 OR L28 OR L29 OR L30 OR L34 OR L38
L40
            63 S L11 OR L39
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57 S L40 NOT (2008/SO OR 2007/SO OR 2006/SO)

=> d ibib abs hitstr total

L41

SOURCE:

L41 ANSWER 1 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:110393 CAPLUS

DOCUMENT NUMBER: 150:366245

TITLE: Fasudil Hydrochloride Hydrate, a Rho-Kinase Inhibitor,

Suppresses 5-Hydroxytryptamine-Induced Pulmonary Artery Smooth Muscle Cell Proliferation via JNK and

ERK1/2 Pathway

AUTHOR(S): Chen, Xue-Yan; Dun, Jie-Ning; Miao, Qing-Feng; Zhang,

Yong-Jian

CORPORATE SOURCE: Department of Pharmacology, Hebei Medical University,

Shijiazhuang, Peop. Rep. China Pharmacology (2009), 83(2), 67-79 CODEN: PHMGBN; ISSN: 0031-7012

PUBLISHER: S. Karger AG

DOCUMENT TYPE: Journal LANGUAGE: English

Excessive proliferation of pulmonary artery smooth muscle cells (PASMCs) plays a critical role in the development of pulmonary artery hypertension, and inhibition of PASMC proliferation has been shown to be beneficial to patients with this disease. Recent studies indicate that Rho/ROCK is critically involved in the proliferation of smooth muscle cells. However, the signal transduction of Rho/ROCK and its downstream signaling are not fully understood. In the present study, we investigated the antiproliferation effect of fasudil hydrochloride hydrate, a Rho-kinase inhibitor, on rat PASMC proliferation, and the possible relation of Rho/ROCK to ERK, JNK pathways. The results indicate that fasudil effectively inhibited 5-HT-induced PASMC proliferation, as evaluated by MTT assay and protein expression of proliferating cell nuclear antigen. Flow cytometry anal. showed that fasudil markedly blocked 5-HT-induced cell-cycle progression by arresting the cells in the G0/G1 phase. Consistently, 5-HT-induced ROCK-1 mRNA expression and MYPT-1 phosphorylation were markedly suppressed by fasudil. In addition, fasudil significantly decreased 5-HT-induced JNK activation, ERK translocation to the nucleus and subsequent c-fos and c-jun expression. Taken together, these results indicate that Rho/ROCK is essential for PASMC proliferation produced by 5-HT. Fasudil effectively suppressed 5-HT-induced PASMC proliferation and cell-cycle progression, which was associated with inhibition of JNK activation, ERK translocation to nucleus and subsequent c-fos and c-jun expression.

IT 186694-02-0

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(fasudil hydrochloride hydrate, a Rho-kinase inhibitor, suppresses 5-hydroxytryptamine-induced pulmonary artery smooth muscle cell proliferation via JNK and ERK1/2 pathway)

RN 186694-02-0 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride, hydrate (2:2:1) (CA INDEX NAME)

● HCl

●1/2 H<sub>2</sub>O

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 2 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:943696 CAPLUS

DOCUMENT NUMBER: 149:252504

TITLE: Bioresorbable metal stent with controlled resorption

INVENTOR(S): Orlowski, Michael; Ruebben, Alexander

PATENT ASSIGNEE(S): Eurocor GmbH, Germany SOURCE: PCT Int. Appl., 29pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

	PATENT	NO.			KIND DATE					APPLICATION NO.						DATE			
	WO 2008	0924	 36		A2		2008	0807	1	WO 2	008-	DE16	1		2	0080	130		
	W:	ΑE,	AG,	AL,	ΑM,	ΑO,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,		
		CA,	CH,	CN,	CO,	CR,	CU,	CZ,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FΙ,		
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,		
		KM,	KN,	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,		
	MG, MK, MN					MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,		
	PT, RO, R				RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,		
	TR, TT, TZ			TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW						
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HR,	HU,		
		IE,	IS,	ΙΤ,	LT,	LU,	LV,	MC,	MT,	NL,	NO,	PL,	PT,	RO,	SE,	SI,	SK,		
		TR,	BF,	ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	$\mathrm{ML}_{,}$	MR,	ΝE,	SN,	TD,		
		ΤG,	BW,	GH,	GM,	ΚE,	LS,	MW,	MZ,	NΑ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,		
	AM, AZ, BY			BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM									
	DE 102007004589				, , , , , ,			DE 2007-1020070045						89 20070130					
PRIOR	RIORITY APPLN. INFO.:							DE 2007-1020070045						9A 20070130					
									US 2007-899636P						P 20070206				

- AB The invention relates to a special type of bioresorbable metal stent with controlled resorption owing to a coating with a special polymer, guaranteeing a controlled resorption of the coated endoprothesis after implantation into a blood vessel. The resorbable implant consists of a magnesium alloy that is provided with a biodegradable coating. The biodegradable coating consists preferably of biodegradable polymers and may addnl. contain at least one pharmacol. active substance such as an antiproliferative, antimigration, antiangiogenic, anti-inflammatory, antiphlogistic, cytostatic, cytotoxic and/or antithrombotic agent, anti-restenosis agents, corticoids, sex hormones, statins, epothilones, prostacyclins and/or angiogenesis inducers. Thus, a stent was based on Mg 89, Ca 7, Zn 1, Y 2, and other constituents 1% by weight
- IT 103745-39-7
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bioresorbable metal stent with controlled resorption)
- RN 103745-39-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

L41 ANSWER 3 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:942926 CAPLUS

DOCUMENT NUMBER: 149:231714

TITLE: Biodegradable vascular support

INVENTOR(S): Hoffmann, Erika

PATENT ASSIGNEE(S): Hemoteq A.-G., Germany SOURCE: PCT Int. Appl., 55pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

P	ATENT :	NO.			KIND DATE			APPLICATION NO.						DATE			
— W	0 2008	0924.	 35		A2	_	2008	0807	1	WO 2	008-	DE16	 0				
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		FI,	GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,
	KG, KM, KN,				KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,
	ME, MG, MK,				MN,	MW,	MX,	MY,	MZ,	ΝA,	NG,	ΝΙ,	NO,	NΖ,	OM,	PG,	PH,
	PL, PT, RO,				RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,
	TN, TR, TT,			TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW			
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HR,	HU,
		ΙE,	IS,	ΙΤ,	LT,	LU,	LV,	MC,	MT,	NL,	NO,	PL,	PT,	RO,	SE,	SI,	SK,
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,
		ΤG,	BW,	GH,	GM,	ΚE,	LS,	MW,	MZ,	ΝA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,
	AM, AZ, BY				KG,	KΖ,	MD,	RU,	ΤJ,	TM							
D	DE 102007034350						2009	0129		DE 2	007-	1020	0703	4350	2	0070	724
PRIORI	PRIORITY APPLN. INFO.:								DE 2007-10200700547						A 20070130		
										DE 2	007-	1020	0703	4350	A 2	0070	724

- AB The invention relates to biodegradable vascular supports consisting of an inner biodegradable metal skeleton and an outer polymeric coating. The biodegradable coating preferably consists of biodegradable polymers and can also contain at least one pharmacol. active substance such as an anti-inflammatory, cytostatic, anti-angiogenic, fungicidal, antineoplastic, and/or antithrombogenic active ingredient. Thus, a stent was based on Mg 53, Fe 29.8, Ca 13, Y 3, Mn 0.2, and other constituents 1% by weight
- IT 103745-39-7, Fasudil
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (biodegradable vascular support)
- RN 103745-39-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

L41 ANSWER 4 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:352859 CAPLUS

DOCUMENT NUMBER: 148:394354

TITLE: Compositions and methods for treatment of viral

diseases

INVENTOR(S): Johansen, Lisa M.; Owens, Christopher M.; Mawhinney,

Christina; Chappell, Todd W.; Brown, Alexander T.;

Frank, Michael G.; Altmeyer, Ralf

PATENT ASSIGNEE(S): Combinatorx (Singapore) Pre. Ltd., Singapore

SOURCE: PCT Int. Appl., 237pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

Ι	PATE	ENT 1	NO.			KIND DATE		APPLICATION NO.					DATE					
			 0334 0334			A2 A3		2008		1	WO 2	007-	US19	932		2	0070	913
		W:	•	•	•	•	•	AU, CZ,	•	•	•	•	•	•	•	•	•	•
				•	•	•		GT,	•	•	•	•	•	•	•		•	•
	KM, KN, KP, MG, MK, MN,				,	•	,	•	•	,		•	,	,	,		•	,
	MG, MK, MN, PT, RO, RS,																•	
	TR, TT, TZ,			,	•	,	•	•	,	•	•	,	,	,	,	,	,	
		RW:	•				•	CZ,			•	•				•		
								MC,										
			•	•	•	•	•	GA, MZ.	•		•	•	•	•	•		TG,	,
	GH, GM, KE BY, KG, KZ				,	,	,	,	,	,	,	,	,	00,		,	,	,
Ţ						A1	A1 20080703			3 US 2007-900893						20070913		
PRIOR	PRIORITY APPLN. INFO.:										US 2006-844463P					P 20060914		
										1	US 2	006-	8740	61P		P 2	0061.	211

- AB Based on the results of the authors screen identifying compds. and combinations of compds. having antiviral activity, the present invention features compns., methods, and kits useful in the treatment of viral diseases. In certain embodiments, the viral disease is caused by a single stranded RNA virus, a flaviviridae virus, or a hepatic virus. In particular embodiments, the viral disease is viral hepatitis (e.g., hepatitis A, hepatitis B, hepatitis C, hepatitis D, hepatitis E). Also featured are screening methods for identification of novel compds. that may be used to treat a viral disease.
- IT 103745-39-7, Fasudil
  - RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - (compns. and methods for treatment of viral diseases)
- RN 103745-39-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

SOURCE:

L41 ANSWER 5 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:192035 CAPLUS

DOCUMENT NUMBER: 148:254222

TITLE: Compounds for improving learning and memory Stephan, Dietrich A.; Huentelman, Matthew J.; INVENTOR(S):

Papassotiropoulos, Andreas; De Quervain, Dominique

J.-F.

PATENT ASSIGNEE(S): Translational Genomics Research Institute, USA;

> University of Zurich PCT Int. Appl., 63pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT	NO.		KIND DATE			APPLICATION NO.						DATE					
WO	2008 2008 2008	0193	95		A2 A9 A3		2008 2008 2008	0417		 WO 2	007-	 US75	 728					
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		PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	NI, SL, ZA,	SM,	SV,		,	,		
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		GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	ML, SZ, EP,	TZ,						
	2007 2659	2817			A1		2008	0214		AU 2	:007- :007-	2817				0070 0070		
	2008 2061		568		A1 A2						007- 007-					0070 0070		
	R:	IS,	IT,	LI,	LT,	LU,					ES, PL,							
PRIORIT	AL, BA, HR RIORITY APPLN. INFO.:					KS				US 2	006- 007-	9174	76P		P 2	0060 0070 0070	511	
OTHER S	OURCE	(S):			MARPAT 148:254222				WO 2007-US75728 222						W 20070010			

OTHER SOURCE(S):

GΙ

$$R^4$$
 $0=S=0$ 
 $R^3$ 
 $R^2$ 
 $R^3$ 

AΒ The invention provides a method for improving learning and memory in a subject by administering a therapeutically effective amount of a compound of Formula (I), R1 = absent, H, C1-6 alkyl, R2 = H, OH, or halogen, R3 = H, C1-6 alkyl, R4 = N-linked heterocyclic ring, etc.; or Formula (II), R1 = H, C1-6 alkyl, R2 = H, C1-6 alkyl, OH, etc., R3 = H, C1-6 alkyl, and wavy line = double bond, etc.: or (R1)x-Ser-Ile-Tyr-Arg-Arg-Gly-Ala-Arg-Arg-Trp-Arg-Lys-Leu - (R2)y, R1 and R2 = amino acid sequences. Fasudil administration to aging rats significantly improved working memory. ΙT 103745-39-7 103745-39-7D, salts, hydrates, and solvates 105628-07-7 105628-07-7D, hydrates, and solvates RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compds. for improving learning and memory) RN 103745-39-7 CAPLUS Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX CN

ΙI

NAME)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

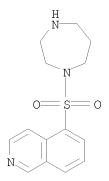
RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

## ● HCl

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)



L41 ANSWER 6 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1484133 CAPLUS

DOCUMENT NUMBER: 148:151915

TITLE: Cardiovascular compositions containing hemihydrate or

trihydrates of fasudil salts

INVENTOR(S): Huang, Zhenhua PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhuanli Shenging Gongkai Shuomingshu, 17pp.

CODEN: CNXXEV

KIND DATE

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

	CN 101092413	A	20071226	CN 2006-10044980	20060623
PRIO	RITY APPLN. INFO.:			CN 2006-10044980	20060623
AB	The invention relate	es to p	harmaceutica	l hydrates of fasudil	salts, which
	include nitrate, sul	fate,	bromide, pho	sphate, mesylate, tart	rate, citrate,
	fumarate, maleate or	succi	nate; and th	e hydrate is hemihydra	te or
	trihydrate. The inv	ention	also relate	s to pharmaceutical co	mposition in forms
	of injection or oral	prepn	s. containin	g the above pharmaceut	ical salt hydrate
	of fasudil, other ad	ctive c	onstituent a	nd pharmaceutically ac	ceptable
	carrier. The invent	ive pr	oduct is use	d for preparing medica	ments for

APPLICATION NO.

DATE

of fasudil, other active constituent and pharmaceutically acceptable carrier. The inventive product is used for preparing medicaments for treating and/or preventing cardiovascular and cerebrovascular diseases, with advantages of good stability, fine dissolvability, simple preparation process, low cost, high purity, high yield, stable quality and being suitable for industrial production

IT 103745-39-7P, Fasudil

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(cardiovascular compns. containing hemihydrate or trihydrates of fasudil salts)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

IT 103745-39-7DP, Fasudil, salts and hydrates
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cardiovascular compns. containing hemihydrate or trihydrates of fasudil

salts)
RN 103745-39-7 CAPLUS
CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

L41 ANSWER 7 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1081954 CAPLUS

DOCUMENT NUMBER: 147:357220

TITLE: Nervous function reconstruction by using Rho kinase

inhibitors for olfactory-mucosa grafting for treatment

of central nervous system injury

INVENTOR(S): Kippo, Toshiki; Iwatsuki, Koichi; Kishima, Haruhiko;

Yamashita, Toshihide

PATENT ASSIGNEE(S): Osaka University, Japan; Chiba University

SOURCE: Jpn. Kokai Tokkyo Koho, 13pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

JP 2007246466 A 20070927 PRIORITY APPLN. INFO.:	JP 2006-74380 JP 2006-74380	20060317 20060317

AB Nervous function reconstruction and regeneration by using Rho kinase inhibitors, including fasudil HCl, for olfactory-mucosa grafting are claimed for treatment of central nervous system injury, e.g. trauma, spinal cord injury, cerebrovascular disorder. The Rho kinase inhibitors can be given by injection or i.v. infusions.

IT 105628-07-7, Fasudil hydrochloride

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nervous function reconstruction by using Rho kinase inhibitors for olfactory-mucosa grafting for treatment of central nervous system injury)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

L41 ANSWER 8 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1016569 CAPLUS

DOCUMENT NUMBER: 148:503081

TITLE: Novel drug delivery system

INVENTOR(S): Nadkarni, Sunil Sadanand; Vaya, Navin; Karan, Rajesh

Singh; Gupta, Vinod Kumar

PATENT ASSIGNEE(S): Torrent Pharmaceuticals Limited, India

SOURCE: Indian Pat. Appl., 80pp., Addn. of Indian Appl. No.

2004MU198.

CODEN: INXXBQ

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 2005MU01012	A	20070831	IN 2005-MU1012	20050826
PRIORITY APPLN. INFO.:			IN 2004-MU198	A0 20040220

AB A novel modified release dosage form comprising of a high solubility active ingredient, which utilizes dual retard technique to effectively reduce the quantity of release controlling agents. Present invention can optionally comprise addnl. another active ingredient as an immediate release form or modified release form. Present invention also relates to a process for preparing the said formulation.

IT 103745-39-7, Fasudil

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (novel drug delivery system)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

L41 ANSWER 9 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:851418 CAPLUS

DOCUMENT NUMBER: 147:263598

TITLE: Quality control method for fasudil hydrochloride

injection

INVENTOR(S):
Yao, Xiaoqing

PATENT ASSIGNEE(S): Tianjin Chasesun Pharmaceutical Co., Ltd., Peop. Rep.

China

SOURCE: Faming Zhuanli Shenging Gongkai Shuomingshu, 10pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101008637	А	20070801	CN 2007-10000226	20070111
PRIORITY APPLN. INFO.:			CN 2007-10000226	20070111
3 D				

AB The title quality control method comprises characteristics observation, identification and inspection of contents, and assay of active ingredients. The identification of content comprises identifying contents by UV and visible spectrophotometry and nickel hydroxide test paper. The inspection of contents comprises testing pH value, color, heat source, asepsis, and related substance by high performance liquid chromatog. (HPLC). The assay of active ingredients comprises measuring content of fasudil hydrochloride by UV and visible spectrophotometry.

IT 105628-07-7, Fasudil hydrochloride

RL: ANT (Analyte); ANST (Analytical study)

(quality control method for fasudil hydrochloride injection)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

L41 ANSWER 10 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:769872 CAPLUS

DOCUMENT NUMBER: 148:387155

TITLE: Novel dosage form

INVENTOR(S): Nadkarni, Sunil Sadanand; Vaya, Navin; Karan, Rajesh

Singh; Gupta, Vinod Kumar

PATENT ASSIGNEE(S): Torrent Pharmaceuticals Limited, India

SOURCE: Indian Pat. Appl., 96pp.

CODEN: INXXBQ

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 2005MU01013	A	20070629	IN 2005-MU1013	20050826
PRIORITY APPLN. INFO.:			IN 2005-MU1013	20050826

AB A dosage form comprising of a high-dose, high-solubility active ingredient for modified release and a low-dose active ingredient for immediate release wherein the weight ratio of immediate-release active ingredient and modified-release active ingredient is from 1:10 to 1:15000 and the weight of modified-release active ingredient per unit is from 500 mg to 1500 mg. A process for preparing the dosage form is provided.

IT 103745-39-7, Fasudil

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (novel dosage form containing modified-release and immediate-release active ingredients)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

INVENTOR(S):

L41 ANSWER 11 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:741632 CAPLUS

DOCUMENT NUMBER: 147:197265

TITLE: New freeze-dried injection formulation of fasudil

hydrochloride Zhou, Changhai Peop. Rep. China

SOURCE: Faming Zhuanli Shenging Gongkai Shuomingshu, 7pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1989967 PRIORITY APPLN. INFO.	 A	20070704	CN 2005-10136032 CN 2005-10136032	20051229 20051229
and its hydrate, injection is self lactose and poly and/or its hydratis prepared by distance water resp., mix	and excipected from ethylene geto excipes to excipes solving ing, filte	ient. The e mannitol, o lycol. The pient is 1 : fasudil hydr ring, adding	ne or more of fasudil hy excipient of the freeze-glycine, low mol. weight weight ratio of fasudil (1-4). The freeze-dricochloride and excipient injection water, filted drying. The invention	dried dextran, hydrochloride ed injection in injection ring to

IT 105628-07-7, Fasudil hydrochloride
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(new freeze-dried injection formulation of fasudil hydrochloride)

stability of fasudil hydrochloride and safety of freeze-dried injection.

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

L41 ANSWER 12 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:561763 CAPLUS

DOCUMENT NUMBER: 146:494108

TITLE: Anti-angiogenic activity of 2-methoxyestradiol in

combination with anti-cancer agents

INVENTOR(S): Plum, Stacy M.; Strawn, Steven J.; Lavallee, Theresa

M.; Sidor, Carolyn F.; Fogler, William E.; Treston,

Anthony M.

PATENT ASSIGNEE(S): Entremed, Inc., USA SOURCE: PCT Int. Appl., 49pp.

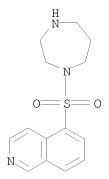
CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PA:	TENT :		KIND DATE				APPLICATION NO.						DATE 				
	2007 2007	–			A2 A3		2007 2009	– -	,	WO 2	006-	US44	152		2	0061	114
	W:	•	•	•	•	•	AU, DE,	•	•	•	•	•	•	•	•	•	•
		KP,	KR,	KZ,	LA,	LC,	HR, LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,
	MN, MW, MX, RS, RU, SC, TZ, UA, UG,				SD,	SE,	SG,	SK,	SL,	SM,	SV,						
	RW:	IS,	IT,	LT,	LU,	LV,	CZ, MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		GM,	KE,	LS,	MW,	MZ,	GN, NA, TM,	SD,	SL,	SZ,	TZ,		•	,	•		
	US 20070185069 PRIORITY APPLN. INFO.:					,	•		,	US 2 US 2 US 2	006- 005-	7362	20P		P 2	0061 0051 0060	114

- AB The present invention relates generally to methods and compns. of treating disease characterized by abnormal cell proliferation and/or abnormal or undesirable angiogenesis by administering antiangiogenic agents in combination with chemotherapeutic agents. More specifically, the present invention relates to a methods and compns. of treating diseases characterized by abnormal cell proliferation and/or abnormal or undesirable angiogenesis by administering 2-methoxyestradiol, in combination with chemotherapeutic agents.
- IT 105628-07-7, Fasudil hydrochloride
  - RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - (anti-angiogenic activity of 2-methoxyestradiol and other estradiols in combination with anti-cancer agents)
- RN 105628-07-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)



L41 ANSWER 13 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:538868 CAPLUS

DOCUMENT NUMBER: 146:507711

TITLE: Composition comprising endothelin conversion enzyme

inhibitor for treatment of cardiovascular and other

associated disorders

INVENTOR(S): Jain, Rajesh; Jindal, Kour Chand

PATENT ASSIGNEE(S): Panacea Biotec Ltd, India SOURCE: PCT Int. Appl., 46pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	PATENT NO.					DATE			APPLICATION NO.					DATE		
WO 2007	 0549	75		A1	_	 2007	 0518	1	WO 2	 006-	 IN43	 7		2	0061	 107
W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	ΚM,	KN,
	KP,	KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,
	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NΙ,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,
	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,
	ΤZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW						
RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
	IS,	ΙΤ,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	${ m ML}$ ,	MR,	ΝE,	SN,	TD,	ΤG,	BW,	GH,
	GM,	KΕ,	LS,	MW,	MZ,	NΑ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,
	KG,	KΖ,	MD,	RU,	ТJ,	TM										

PRIORITY APPLN. INFO.:

IN 2005-DE2986 A 20051108

OTHER SOURCE(S): MARPAT 146:507711

This invention relates to compns. comprising at least one endothelin conversion enzyme (ECE) inhibitor and/or neutral endopeptidase (NEP) inhibitor in combination with at least one another active agent optionally with other pharmaceutically acceptable excipients useful in the prophylaxis, treatment and/or amelioration of cardiovascular and other associated disorders such as one or more of coronary artery disease, congestive heart failure, angina, atherosclerosis, hyperlipidemia, diabetes, neurodegenerative disorders. Also described are process for preparation of such compns. and method of using such compns. Thus, immediate release tablet was prepared containing SLV-306 150 mg, atenolol 50 mg, sodium bicarbonate 150 mg, microcryst. cellulose 105 mg, sodium starch glycolate 40 mg, Povidone K-30 10 mg, magnesium stearate 5 mg, colloidal silicone dioxide 5 mg, and magnesium stearate 5 mg.

IT 103745-39-7, Fasudil

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (composition comprising endothelin conversion enzyme inhibitor for treatment of cardiovascular and other associated disorders)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 14 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:432005 CAPLUS

DOCUMENT NUMBER: 146:395318

TITLE: Remedies for sensory disturbances containing fasudil or hydroxyfasudil and compositions containing the same

INVENTOR(S): Doi, Katsumi; Kubo, Takeshi; Senba, Osamu PATENT ASSIGNEE(S): Asahi Chemical Pharma Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007099675	A	20070419	JP 2005-291450	20051004
PRIORITY APPLN. INFO.:			JP 2005-291450	20051004

OTHER SOURCE(S): MARPAT 146:395318

AB The invention provides a remedy for sensory disturbance, e.g. hearing disorder, vestibular disorder, and dizziness, characterized by containing fasudil or hydroxyfasudil, or its salt or hydrate as an active component. A composition for treatment of sensory disturbance containing (1) fasudil or hydroxyfasudil, or its salt, (2) a steroid, prostaglandin, vitamin, calcium blocker, low-mol.-weight dextran, and/or anticoagulant is also disclosed. For example, an injection composition containing fasudil hydrochloride

10 mg/2 mL was formulated, and applied to a patient with sudden deafness.

IT 103745-39-7, Fasudil 105628-07-7, Fasudil hydrochloride

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

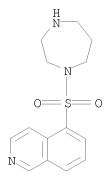
(remedies for sensory disturbances containing fasudil or hydroxyfasudil, and compns. containing the same)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)



L41 ANSWER 15 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:431999 CAPLUS

DOCUMENT NUMBER: 146:387189

TITLE: Isoquinolinesulfonylhomopiperazine compounds for the

treatment of dermatitis

INVENTOR(S): Oniki, Shuntaro; Horikawa, Tatsuya; Nishikiori,

Chikako

PATENT ASSIGNEE(S): Asahi Chemical Pharma Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007099676 PRIORITY APPLN. INFO.:	А	20070419	JP 2005-291451 JP 2005-291451	20051004 20051004

AB Isoquinolinesulfonylhomopiperazine derivs. and salts and hydrates thereof are effective for the treatment of dermatitis. The above compds. may be used together with steroids. For example, an injection was formulated containing 1-(5-isoquinolinesulfonyl)homopiperazine·HCl salt 10 mg, NaCl 16 mg, and distilled water to 2 mL.

IT 103745-39-7 105628-07-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

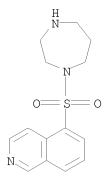
(isoquinolinesulfonylhomopiperazine compds. for treatment of dermatitis)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)



INVENTOR(S):

L41 ANSWER 16 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:819593 CAPLUS

DOCUMENT NUMBER: 145:321576

TITLE: Fasudil hydrochloride formulation for oral

administration Yao, Xiaoqing

PATENT ASSIGNEE(S): Tianjin Chasesun Pharmaceutical Co., Ltd., Peop. Rep.

China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 24pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1813762	A	20060809	CN 2005-10130096	20051212
CN 100367967	С	20080213		

PRIORITY APPLN. INFO.:

CN 2005-10130096 20051212

AB Fasudil hydrochloride is formulated into tablets, capsules and granules with appropriate adjuvants e.g. lactose, hydroxypropyl cellulose, Opadry, carboxymethyl starch sodium, talc powder and titanium dioxide to treat cerebral vasospasm following subarachnoid hemorrhage. Method for quality control is also established. Formulation for oral administration is convenient to use.

IT 105628-07-7, Fasudil hydrochloride

RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(fasudil hydrochloride formulation for oral administration)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

L41 ANSWER 17 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:494188 CAPLUS

DOCUMENT NUMBER: 145:7747

TITLE: Preparation of prodrugs of (2R)-2-propyloctanoic acid

for the treatment of stroke

INVENTOR(S): Munoz, Benito; Payne, Joseph E.; Prasit, Petpiboon;

Reger, Thomas S.; Smith, Nicholas D.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

	PATENT NO.								APPLICATION NO.										
						A2				WO 2005-US40727									
		W:	CN, GE, KZ, MZ, SG,	CO, GH, LC, NA, SK,	CR, GM, LK, NG, SL,	AM, CU, HR, LR, NI,	AT, CZ, HU, LS, NO, SY,	AU, DE, ID, LT, NZ, TJ,	AZ, DK, IL, LU, OM,	BA, DM, IN, LV, PG,	DZ, IS, LY, PH,	EC, JP, MA, PL,	EE, KE, MD, PT,	EG, KG, MG, RO,	ES, KM, MK, RU,	FI, KN, MN, SC,	GB, KP, MW, SD,	GD, KR, MX, SE,	
		RW:	IS, CF, GM,	IT, CG, KE,	LT, CI, LS,	LU, CM,	LV, GA, MZ,	CZ, MC, GN, NA,	NL, GQ,	PL, GW,	PT, ML,	RO, MR,	SE, NE,	SI, SN,	SK, TD,	TR, TG,	BF, BW,	BJ, GH,	
		2005	3067	41				2006	0526		AU 2	005-	3067	41			0051		
		2587 1814	838			A2											0051 0051	110	
	CM	R:	IS,	IT,	LI,	LT,	LU,	CZ, LV, 2007	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR		
	JP IN	2008	5205 CN01	2 69 651		T A		2007 2008 2007	0619 0831		JP 2 IN 2	007-	5413 CN16	11 51		2 2	0051	110 110 423	
	US US	2008 2007 2008 7495	0132 029	488		A1 B2		2008 2009	0605 0224		US 2	007-	6678	14		2	0070	515	
PRIOR	KR	2007	0853	79		A		2007	0827		KR 2 US 2	007- 004- 005-	7111. 6282	32 80P		2 P 2	0070. 0041	516 116	
OTHEF AB	Pro	odrug:	s of ing	(2R them	) -2-; , wh	propy ich m	yloc may	be e	ic ad ffect	47; cid, tive	MARP and in	AT 1 pha modu	45:7 rmac	747 ∋uti	cal	comp:	ns.		
IT	comprising them, which may be effective in modulating multiple events in the biochem. cascade of stroke are prepared.  IT 103745-39-7, Fasudil RL: RCT (Reactant); RACT (Reactant or reagent)												ent of						
RN CN		3745-: oquin ME)				exahy	ydro	)-1H-	1,4-	diaz	epin	-1-y	l)su	lfon	yl]-	(C.	A IN	DEX	

REFERENCE COUNT:

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 18 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:374017 CAPLUS

DOCUMENT NUMBER: 144:456493

TITLE: Manufacture of fasudil hydrochloride injections

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE							
PRIO	CN 1729985 RITY APPLN. INFO.:	А	20060208	CN 2005-10089011 CN 2005-10089011	20050802 20050802							
AB	AB The title fasudil hydrochloride injections are prepared from fasudil hydrochloride 0.01-0.2 weight% and pharmaceutically acceptable diluents											
(sodium chloride, glucose, or amino acids) $0.5-50$ weight% by adjusting pl $4.0-7.5$ , removing impurities and pyrogens, decolorizing, filtering and												
IT	sterilizing, and freezing drying. The injectable solution is used conveniently by direct i.v. injection. 105628-07-7, Fasudil hydrochloride											
	·	gicāl a	ctivity); PR	P (Properties); THU (The	erapeutic							

(manufacture of fasudil hydrochloride injections) RN  $105628\!-\!07\!-\!7$  CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

L41 ANSWER 19 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:374015 CAPLUS

DOCUMENT NUMBER: 144:456491

TITLE: Manufacture of fasudil hydrochloride freeze-dried

powder

SOURCE: Faming Zhuanli Shenging Gongkai Shuomingshu, 13 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1729984	A	20060208	CN 2005-10088775	20050801
PRIORITY APPLN. INFO.:			CN 2005-10088775	20050801

AB The title fasudil hydrochloride is manufactured from fasudil hydrochloride 1-5 weight% and pharmaceutically acceptable excipients 4-40 weight% by removing impurities and pyrogens, decolorizing, filtering and sterilizing, and freeze-drying. The fasudil hydrochloride is convenient to storing and transporting, and has high stability after long time placement.

IT 105628-07-7, Fasudil hydrochloride

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(manufacture of fasudil hydrochloride freeze-dried powder)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

L41 ANSWER 20 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:100738 CAPLUS

DOCUMENT NUMBER: 144:198849

TITLE: Novel dosage form comprising modified-release and

immediate-release active ingredients

INVENTOR(S): Vaya, Navin; Karan, Rajesh Singh; Sadanand, Sunil;

Gupta, Vinod Kumar

PATENT ASSIGNEE(S): India

SOURCE: U.S. Pat. Appl. Publ., 49 pp., Cont.-in-part of U.S.

Ser. No. 630,446.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
US 20060024365	A1	20060202	US 2005-134633		20050519	
IN 2002MU00697	A	20040529	IN 2002-MU697		20020805	
IN 193042	A1	20040626				
IN 2002MU00699	A	20040529	IN 2002-MU699		20020805	
IN 2003MU00080	A	20050204	IN 2003-MU80		20030122	
IN 2003MU00082	A	20050204	IN 2003-MU82		20030122	
US 20040096499	A1	20040520	US 2003-630446		20030729	
PRIORITY APPLN. INFO.:			IN 2002-MU697	A	20020805	
			IN 2002-MU699	Α	20020805	
			IN 2003-MU80	Α	20030122	
			IN 2003-MU82	А	20030122	
			US 2003-630446	A2	20030729	

- AB A dosage form comprising of a high dose, high solubility active ingredient as modified release and a low dose active ingredient as immediate release where the weight ratio of immediate release active ingredient and modified release active ingredient is from 1:10 to 1:15000 and the weight of modified release active ingredient per unit is from 500 mg to 1500 mg; a process for preparing the dosage form. Tablets containing 10 mg sodium pravastatin and 1000 mg niacin were prepared The release of sodium pravastatin after 24 h was 67.7%, and the release of niacin after 1 h was 84.1%.
- IT 103745-39-7, Fasudil
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (novel dosage form comprising modified-release and immediate-release active ingredients)
- RN 103745-39-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

L41 ANSWER 21 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1314332 CAPLUS

DOCUMENT NUMBER: 144:40870

TITLE: Formulations containing fasudil, a matrix and an

envelope

INVENTOR(S): Kranz, Heiko; Wagner, Torsten

PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.				KIND DATE				APPLICATION NO.					DATE				
WO 2005117896			A1 20051215				WO 2005-EP5990						20050601				
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KM,	KP,	KR,	KΖ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	NA,
		NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
		SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,
		ZA,	ZM,	ZW													
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	MΖ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		ΑZ,	BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IS,	ΙΤ,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,
		MR,	NE,	SN,	TD,	ΤG											

PRIORITY APPLN. INFO.:

DE 2004-102004027518A 20040603 US 2004-578351P P 20040610

- AB The invention relates to the use of a pharmaceutical formulation comprising 1-(5-isoquinolinesulfonyl)homopiperazine (FASUDIL) and derivs. thereof in a matrix body and an envelope surrounding the matrix body. The matrix body and envelope comprise poly vinyl pyrrolidone and poly vinyl acetate. Release occurs according to zero order reaction kinetics. The pharmaceutical formulation is used to treat diseases such as cardiovascular diseases, heart attacks, migraines, Alzheimer's disease, neuronal regeneration, tumors, erectile dysfunction, asthma, incontinence and menstrual complaints. Thus a matrix tablet was prepared by direct tablet pressing; it contained per basic unit (mg): fasudil hydrochloride hemihydrate 100; lactose 117.5; Kollidon SR 75; silica 3; magnesium stearate 4.5.
- IT 103745-39-7, Fasudil 105628-07-7, Fasudil hydrochloride 186694-02-0
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (formulations containing fasudil, a matrix and an envelope)
- RN 103745-39-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

# ● HCl

● HCl

●1/2 H<sub>2</sub>O

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 22 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1276806 CAPLUS

DOCUMENT NUMBER: 144:32080

TITLE: Effects of fasudil, a Rho-kinase inhibitor, on

myocardial preconditioning in anesthetized rats
AUTHOR(S): Demiryuerek, Seniz; Kara, Ali F.; Celik, Ahmet;
Babuel, Aydan; Tarakcioglu, Mehmet; Demiryuerek,

Abdullah T.

CORPORATE SOURCE: Department of Physiology, Faculty of Medicine, Gazi

University, Ankara, 06510, Turk.

SOURCE: European Journal of Pharmacology (2005), 527(1-3),

129-140

CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

The aim of this study was to examine the effects of fasudil, a Rho-kinase AB inhibitor, on ischemic preconditioning and carbachol preconditioning in anesthetized rats. The total number of ventricular ectopic beats was markedly augmented with fasudil at 0.3 mg/kg and depressed with fasudil at 10 mg/kg. Fasudil at 10 mg/kg also markedly decreased the ventricular tachycardia incidence. Ischemic preconditioning, induced by 5 min coronary artery occlusion and 5 min reperfusion, decreased the incidence of ventricular tachycardia and abolished the occurrence of ventricular fibrillation. The incidences of ventricular tachycardia and ventricular fibrillation in the fasudil (10 mg/kg) + ischemic preconditioning group were found to be similar to the ischemic preconditioning group. However, low doses of fasudil (0.3 and 1 mg/kg) appeared to prevent the antiarrhythmic effects of ischemic preconditioning. Carbachol (4  $\mu q/kq/min$  for 5 min) induced marked redns. in mean arterial blood pressure, heart rate and abolished ventricular tachycardia. Marked redns. in ventricular ectopic beats and ventricular tachycardia were noted in the fasudil (10 mg/kg) + carbachol preconditioning group. Lactate levels were markedly reduced in the ischemic preconditioning group and this reduction was prominently inhibited with fasudil at 1 mg/kg. Ischemic preconditioning caused a marked decrease in plasma malondialdehyde levels. Fasudil (10 mg/kg), ischemic preconditioning and carbachol preconditioning each generated marked redns. in ischemic myocardial malondialdehyde levels. Decreases in infarct size were observed with fasudil (10 mg/kg) treatment, ischemic preconditioning and carbachol preconditioning when compared to control. These results suggest that low doses of fasudil (0.3 and 1 mg/kg) prevent the effects of ischemic preconditioning and carbachol preconditioning, but a high dose of fasudil (10 mg/kg) was able to produce cardioprotective effects on myocardium against arrhythmias, infarct size or biochem. parameters and mimic the effects of ischemic preconditioning in anesthetized rats.

IT 105628-07-7, Fasudil hydrochloride

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(effects of fasudil, a Rho-kinase inhibitor, on myocardial preconditioning in anesthetized rats)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT: 39

THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 23 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1021625 CAPLUS

DOCUMENT NUMBER: 143:292607

TITLE: Fasudil-containing preparation and method of improving

stability thereof

INVENTOR(S): Maejima, Takuji; Ohshima, Miki

PATENT ASSIGNEE(S): Asahi Kasei Pharma Corporation, Japan

SOURCE: PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA					KIND DATE			APPLICATION NO.						DATE				
WO	2005	 0872.	37		A1	_	2005	0922	,	WO 2	005-	 JP37	 72		2	0050	304	
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KΖ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	
		SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
		AZ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
		EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IS,	ΙT,	LT,	LU,	MC,	NL,	PL,	PT,	
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	
		MR,	NE,	SN,	TD,	ΤG												
CA	2559	630			A1		2005	0922	1	CA 2	005-	2559	630		2	0050	304	
EP	1726	306			A1		2006	1129		EP 2	005-	7200	44		2	0050	304	
	R:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	
		IS,	ΙΤ,	LI,	LT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR			
CN	1929	847			Α		2007	0314	1	CN 2	005-	8000	8301		2	0050	304	
US									5 US 2006-598303									
KR	KR 2007008634							7 KR 2006-721308										
IORIT	RITY APPLN. INFO.:							JP 2004-75031			Ž	A 20040316						
	WO 2005-JP3772 W 20050304																	

- AB Disclosed are fasudil-containing prepns. that despite the use of a container excelling in the visibility of contents without particularly blocking of light, exhibit high stability against light; and a method of improving the stability of the prepns. against light, or storing the same. By regulating the pH value of aqueous solution of fasudil charged in a colorless transparent container to ≤5.5, there can be provided fasudil-containing prepns. excelling in stability against light; and can be provided a method of improving the stability of the aqueous solution of fasudil against light, or storing the same.
- IT 105628-07-7P, Fasudil hydrochloride
  - RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
- RN 105628-07-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 186694-02-0 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride, hydrate (2:2:1) (CA INDEX NAME)

● HCl

●1/2 H<sub>2</sub>O

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 24 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:942455 CAPLUS

DOCUMENT NUMBER: 143:432579

TITLE: Fasudil hydrochloride hydrate, a Rho-kinase (ROCK)

inhibitor, suppresses collagen production and enhances

collagenase activity in hepatic stellate cells

AUTHOR(S): Fukushima, Marie; Nakamuta, Makoto; Kohjima, Motoyuki;

Kotoh, Kazuhiro; Enjoji, Munechika; Kobayashi, Naoya;

Nawata, Hajime

CORPORATE SOURCE: Department of Medicine and Bioregulatory Science,

Graduate School of Medical Sciences, Kyushu

University, Fukuoka, Japan

SOURCE: Liver International (2005), 25(4), 829-838

CODEN: LIINCM; ISSN: 1478-3223

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

The Rho-ROCK signaling pathways play an important role in the activation AB of hepatic stellate cells (HSCs). We investigated the effects of fasudil hydrochloride hydrate (fasudil), a Rho-kinase (ROCK) inhibitor, on cell growth, collagen production, and collagenase activity in HSCs. Rat HSCs and human HSC-derived TWNT-4 cells were cultured for studies on stress fiber formation and  $\alpha$ -smooth muscle actin ( $\alpha$ -SMA) expression. Proliferation was measured by BrdU incorporation, and apoptosis by TUNEL assay. The phosphorylation states of the MAP kinases (MAPKs), extra cellular signal-regulated kinase 1/2 (ERK1/2), c-jun kinase (JNK), and p38 were evaluated by western blot anal. Type I collagen, matrix metalloproteinase-1 (MMP-1) and tissue inhibitor of matrix metalloproteinase-1 (TIMP-1) production and gene expression were evaluated by ELISA and real-time PCR, resp. Collagenase activity (active MMP-1) was also evaluated. Fasudil (100  $\mu\text{M}$ ) inhibited cell spreading, the formation of stress fibers, and expression of  $\alpha\text{-SMA}$  with concomitant suppression of cell growth, although it did not induce apoptosis. Fasudil inhibited phosphorylation of ERK1/2, JNK, and p38. Treatment with fasudil suppressed the production and transcription of collagen and TIMP, stimulated the production and transcription of MMP-1, and enhanced collagenase activity. These findings demonstrated that fasudil not only suppresses proliferation and collagen production but also increases collagenase activity.

IT 105628-07-7, Fasudil hydrochloride

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(fasudil hydrochloride hydrate suppressed proliferation and collagen production but increased collagenase activity in hepatic stellate cell in rat)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT: 43

THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 25 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:442152 CAPLUS

DOCUMENT NUMBER: 143:278832

TITLE: Rho-Kinase Inhibitor Improves Increased Vascular

Resistance and Impaired Vasodilation of the Forearm in

Patients With Heart Failure

AUTHOR(S): Kishi, Takuya; Hirooka, Yoshitaka; Masumoto, Akihiro;

Ito, Koji; Kimura, Yoshikuni; Inokuchi, Kosuke;

Tagawa, Tatsuya; Shimokawa, Hiroaki; Takeshita, Akira;

Sunagawa, Kenji

CORPORATE SOURCE: Department of Cardiovascular Medicine, Kyushu

University Graduate School of Medical Sciences,

Fukuoka, 812-8582, Japan

SOURCE: Circulation (2005), 111(21), 2741-2747

CODEN: CIRCAZ; ISSN: 0009-7322 Lippincott Williams & Wilkins

PUBLISHER: Lippinco
DOCUMENT TYPE: Journal
LANGUAGE: English

Background: Rho-kinase is suggested to have an important role in enhanced vasoconstriction in animal models of heart failure (HF). Patients with HF are characterized by increased vasoconstriction and reduced vasodilator responses to reactive hyperemia and exercise. The aim of the present study was to examine whether Rho-kinase is involved in the peripheral circulation abnormalities of HF in humans with the Rho-kinase inhibitor fasudil. Methods and Results: Studies were performed in patients with HF (HF group, n=26) and an age-matched control group (n=26). Forearm blood flow was measured with a strain-gauge plethysmograph during intra-arterial infusion of graded doses of fasudil or sodium nitroprusside. Resting forearm vascular resistance (FVR) was significantly higher in the HF group than in the control group. The increase in forearm blood flow evoked by fasudil was significantly greater in the HF group than in the control group. The increased FVR was decreased by fasudil in the HF group toward the level of the control group. By contrast, FVR evoked by sodium nitroprusside was comparable between the 2 groups. Fasudil significantly augmented the impaired ischemic vasodilation during reactive hyperemia after arterial occlusion of the forearm in the HF group but not in the control group. Fasudil did not augment the increased FVR evoked by phenylephrine in the control group significantly. Conclusions: These

IT 105628-07-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

vasodilation of the forearm in patients with HF.

(Rho-kinase inhibitor fasudil hydrochloride hydrate dose dependently increased blood flow, improved increased vascular resistance and augmented impaired ischemic vasodilation during reactive hyperemia in forearm of patient with heart failure)

results indicate that Rho-kinase is involved in increased FVR and impaired

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 26 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:164551 CAPLUS

DOCUMENT NUMBER: 142:329672

TITLE: Protective effects of hydrochloric fasudil on ischemia

reperfusion injury in rat brain

AUTHOR(S): Tong, Huaiyu; Yu, Xinguang; Xu, Bainan

CORPORATE SOURCE: Department of Neurosurgery, General Hospital of Chinese PLA, Beijing, 100853, Peop. Rep. China SOURCE: Zhongquo Linchuang Kangfu (2004), 8(16), 3157-3159

CODEN: ZLKHAH; ISSN: 1671-5926

PUBLISHER: Zhongguo Linchuang Kangfu Zazhishe

DOCUMENT TYPE: Journal LANGUAGE: English

Hydrochloric fasudil, a new calcium antagonist, has strong effects of dilating vessels and protecting ischemic brain tissues. The effects of hydrochloric fasudil on ischemic reperfusion injury in rat brain as an intracellular calcium antagonist was studied. Thirty healthy SD rats (body mass 250-300 g) were treated with hydrochloric fasudil (n=15) or normal saline (n=15), resp., and cerebral ischemia models were made by using the suture method described by Haruo Nagasawa. Another 50 healthy SD rats (weighing 250-300 g) were selected to establish focal cerebral ischemia models by using the bypass technique described by Carys M Bannister, and then divided into 10 groups with 5 in each group to measure lactic acid content in ischemic brain tissue before ischemia, 60 min after ischemia, 20, 60, 120 min after reperfusion, resp. Rat middle cerebral artery occlusion (MCAO) ischemic reperfusion models were induced by suture method and bypass method. Fasudil or normal saline was given 30 min before ischemia resp. Regional cerebral blood flows (rCBF) 5 min, 60 min after ischemia and 30 min after reperfusion; neurol. function 3, 24, 48 h after operation; and lactic acid contents in brain tissues 20, 60, 120 min after reperfusion were measured. The rCBFs of fasudil group 5, 60 min after ischemia and 30 min after reperfusion were (3.11 $\pm$ 0.02) mL/100 g per min,  $(3.60\pm0.02)$  mL/100 g per min,  $(8.04\pm0.10)$  mL/100 g per min, resp., and significantly higher than those of control group, which were  $(2.63\pm0.04)$ ,  $(3.17\pm1.29)$ ,  $(6.74\pm0.03)$  mL/100 g per min, resp. The neurol. functions of fasudil group were better than those of control group. The lactic acid contents of fasudil group 60min and 120 min after reperfusion  $[(7.2\pm0.3) \text{ mmol/kg}]$  and  $(7.4\pm0.2) \text{ mmol/kg}$ , resp.] were significantly lower than those of control group  $[(10.2\pm0.3) \text{ mmol/kg}]$  and  $(10.0\pm0.3)$  mmol/kg, resp.]. The results indicated that hydrochloric fasudil can increase the rCBFs in ischemia models, accelerate the clearance of lactic acid and protect brain.

IT 105628-07-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT: 18

THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 27 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:878382 CAPLUS

DOCUMENT NUMBER: 141:350161

TITLE: Preparation of azole compounds as PTP1B inhibitors INVENTOR(S): Ikemoto, Tomoyuki; Tanaka, Masahiro; Yuno, Takeo; Sakamoto, Johei; Nakanishi, Hiroyuki; Nakagawa, Yuichi; Ohta, Takeshi; Sakata, Shohei; Morinaga,

Hisayo

PATENT ASSIGNEE(S): Japan Tobacco Inc., Japan SOURCE: PCT Int. Appl., 542 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:					KIN	O	DATE		APPLICATION NO.				NO.	DATE				
WO	2004	 0899	 18		A1	_	2004	1021		WO 2	004-	 JP51	 19		2	0040	409	
	W:											BR,						
												EE,						
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KP,	KR,	KΖ,	LC,	
												MN,			•			
				•								SD,	•					
		,	•		,	,	,	,	,	•	,	VC,		,	,	•		
	RW:							•	,		,	TZ,			,			
		•	•	•	•	•		•	•	•	,	CH,		•	•	•	•	
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		•	•	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	
		TD,																
	2004							-		-								
	2521											2521						
EP	1553											7267						
	R:	,	,		,			,	,	,		LI,			,	,	,	
	0004											BG,						HR
	2004														2			
	1780																	
	3819											5053						
	2005														2			
_	2005 2006						2005					1337 1768						
		-	-									5246	-			0050	-	
	2005 2005											CN29						
	ZUUS APP				А		2007	0000				1052			2 A 2			
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												5053			A 2			
												JP51			as 2 W 2			
IDD CC								0 = 0 4		VVO Z	004-	OFJI	エジ		v	0040	ユロシ	

OTHER SOURCE(S): MARPAT 141:350161

GΙ

$$R - \left[L\right] - \left[CH_{2}\right] - X - \left[C\right] -$$

AB Title compds. I [V = N, CH; W = S, O; m = 0-2; R1, R2 = H, alkyl; X = NR4, etc.; R4 = H, alkyl; n = 0-4; p = 0, 1; L = CR20R21, etc.; R20 = H, alkyl, etc.; R21 = H, alkyl, etc.; R = CO2R19, etc.; R19 = H, alkyl; B = aryl, heteroaryl; R3 = H, halo, etc.; Y = 0, etc.; s = 0, 1; A = (un)substituted alkylene with cycloalkyl; Z = cycloalkyl, etc.] were prepared For example, O-alkylation of 5-hydroxynicotinic acid Me ester with compound II [Q = C1], e.g., prepared from 4-bromoacetylbenzoic acid in 5 steps, followed by saponification

afforded compound II [3-carboxypyridin-5-yloxy] in 44.1% overall yield. In PTP1B (protein tyrosine phosphatase 1B) inhibition assays, the IC50 value of compound II [Q = 3-carboxypyridin-5-yloxy] was 0.28  $\mu\text{M}$ . Compds. I are claimed useful for the treatment of obesity, diabetes, etc. Formulations are given.

IT 103745-39-7, Fasudil

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (medicaments with; preparation of azole compds. as PTP1B inhibitors for treatment of obesity and diabetes)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

REFERENCE COUNT:

16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

PUBLISHER:

L41 ANSWER 28 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:684091 CAPLUS

DOCUMENT NUMBER: 142:225513

TITLE: Development of drug delivery system for intrathecal

administration and its therapeutic effect on cerebral

vasospasm and ischemia

AUTHOR(S): Ishida, Tatsuhiro

CORPORATE SOURCE: Department of Pharmacokinetics and Biopharmaceutics,

The University of Tokushimata, 1-78-1 Sho-machi,

Tokushima, 770-8505, Japan

SOURCE: Yakuqaku Zasshi (2004), 124(8), 541-548

CODEN: YKKZAJ; ISSN: 0031-6903 Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal LANGUAGE: Japanese

To date, the pharmacol. approach to cerebral vasospasm and ischemia has been hampered in part by an inability to attain sufficiently high concns. of drugs in the cerebrospinal fluid (CSF). To overcome this limitation of current drug therapy, we have developed a sustained-release preparation of the protein kinase inhibitor fasudil. Exptl. cerebral vasospasm in rats and dogs was induced by double injection of autologous arterial blood into the cisterna magna. Focal cerebral ischemia in rats was induced by middle cerebral artery occlusion using an intraluminal suture technique. single intrathecal injection of liposomal fasudil can maintain a therapeutic the drug concentration in the CSF due to the sustained-release property of liposomes, significantly decreasing intarct size of acute ischemia and decreasing vasoconstriction of the basilar artery in cerebral vasospasm. This novel approach for the treatment of cerebral vasospasm and ischemia may have significant potential for use in the clin. setting. 105628-07-7, Fasudil hydrochloride ΙT

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(liposomal drug delivery system for intrathecal administration of fasudil and its therapeutic effect on cerebral vasospasm and ischemia) 105628-07-7 CAPLUS

Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride
(1:1) (CA INDEX NAME)

RN CN

● HCl

L41 ANSWER 29 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:453055 CAPLUS

DOCUMENT NUMBER: 141:12315

TITLE: Remedy for glaucoma comprising Rho kinase inhibitor

and  $\beta$ -blocker

INVENTOR(S): Hatano, Masakazu; Nakajima, Tadashi; Matsuqi, Takeshi;

Hara, Hideaki

PATENT ASSIGNEE(S): Santen Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

					KIN	D	DATE		APPLICATION NO.				NO.		DATE			
WO	2004	0456	 44		A1	_	2004	0603		WO 2	 003-	 JP14	 559		2	0031	117	
	W:	ΑE,	ΑG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	ΒA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NΙ,	NO,	NΖ,	
		OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	
		TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW			
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AΖ,	
		BY,	KG,	KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	ВG,	CH,	CY,	CZ,	DE,	DK,	EE,	
		ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG
CA	2506	464			A1		2004	0603		CA 2	003-	2506	464		2	0031	117	
	2003						2004											
JP	2004	1827.																
EΡ	1568	382			A1		2005	0831		EP 2	003-	7728	00		2	0031	117	
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,	
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	ВG,	CZ,	EE,	HU,	SK		
	1711	_ •			Α		2005	1221		CN 2	003-	8010	3467		2	0031	117	
	1323						2007											
US	2006	0052	367		A1		2006	0309		US 2	005-	5350	00		2	0050	516	
JP	2009	0298.	28		Α		2009	0212		JP 2	008-	2456	94		2	0080	925	
RIT	APP	LN.	INFO	.:						JP 2	002-	3332	13		A 2	0021	118	
										WO 2	003-	JP14	559	1	W 2	0031	117	
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- AB It is intended to establishing the usefulness as a remedy for glaucoma of a combination of an Rho kinase inhibitor, which has a novel function mechanism, with a  $\beta$ -blocker. By combining the Rho kinase inhibitor with the  $\beta$ -blocker, the effects of lowering ocular tension of these compds. can be complemented and/or potentiated each other. Concerning the administration form, they can be administered either combinedly or as a mixed preparation The effect of (R) (+) N (1H pyrrolo[2, 3 b]pyridin 4 y1) 4 (1 b)
- (R)-(+)-N-(1H-pyrrolo[2,3-b]pyridin-4-yl)-4-(1-aminoethyl)benzamide dihydrochloride (I) in combination with timolol on ocular tension in rabbits was examined An eye drop containing I 0.1, timolol maleate 0.34, boric acid 0.2, concentrate glycerin 0.25, benzalkonium chloride 0.005 g, HCl/NaOH q.s., and water balance to 100 mL was formulated.
- IT 103745-39-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(remedy for glaucoma comprising Rho kinase inhibitor and  $\beta\text{-blocker})$ 

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

REFERENCE COUNT:

52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 30 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:450741 CAPLUS

DOCUMENT NUMBER: 141:1256

TITLE: Sudden death preventing agents containing

isoquinolines

INVENTOR(S): Shimokawa, Hiroaki; Takeichi, Sanae PATENT ASSIGNEE(S): Asahi Chemical Pharma Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

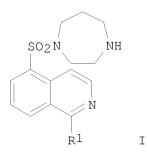
CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004155661	A	20040603	JP 2002-320077	20021101
PRIORITY APPLN. INFO.:			JP 2002-320077	20021101
GI				



- AB The agents contain isoquinolines I (R1 = H, OH), their acid addition salts, or hydrates. Intracoronary administration of 30  $\mu g$  I (R1 = OH)/kg to swine prevented serotonin-induced contraction of coronary artery. An injection solution (2 mL) was formulated containing 10 mg I.HCl (R1 = H) and 16 mg NaCl.
- IT 103745-39-7 105628-07-7 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sudden death preventing agents containing isoquinolines)

- RN 103745-39-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

L41 ANSWER 31 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:203675 CAPLUS

DOCUMENT NUMBER: 140:223330

TITLE: Remedy for glaucoma comprising Rho kinase inhibitor

and prostaglandins

INVENTOR(S): Nakajima, Tadashi; Matsugi, Takeshi; Hara, Hideaki

PATENT ASSIGNEE(S): Santen Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.
                                      KIND
                                                                     APPLICATION NO.
                                                    DATE
                                                                                                           DATE
                                        ____
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        WO 2004019951
                                                    20040311 WO 2003-JP11004
                                                                                                             20030829
                                         A1
              W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG
                     BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
        CA 2496797
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        AU 2003257588
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        JP 2004107335
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                                          Α
                                                                                                             20030829
                                                                       EP 2003-791404
        EP 1541151
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                                                                                                             20030829
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                     IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
        CN 1684689
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        US 20050245509
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                                                    20051103
                                                                       US 2005-525986
                                                                                                             20050225
PRIORITY APPLN. INFO.:
                                                                        JP 2002-250223
                                                                                                        A 20020829
                                                                       WO 2003-JP11004
                                                                                                        W 20030829
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AB It is intended to find out the usefulness as a remedy for glaucoma of a combination of an Rho kinase inhibitor with prostaglandins. By combining an Rho kinase inhibitor with prostaglandins, their effects of lowering ocular tension are complemented and/or enhanced each other. Concerning the administration route, use may be made of either concomitant administration or administration as a blend preparation For example, an eyedrop solution contained (R)-trans-N-(1H-pyrrolo[2,3-b]pyridin-4-yl)-4-(1-aminoethyl)benzamide dihydrochloride 0.3, isopropylunoprostone 0.06, boric acid 0.2, concentrated glycerin 0.25, benzalkonium chloride 0.05 g, diluted HCl q.s., NaOH q.s., and distilled water balance to 100 mL.

IT 103745-39-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(remedy for glaucoma comprising Rho kinase inhibitors and prostaglandins)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

REFERENCE COUNT:

17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 32 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:892612 CAPLUS

DOCUMENT NUMBER: 139:358813

TITLE: Methods using Rho-associated kinase (ROCK) pathway polypeptide modulators for modulating bladder smooth

muscle contractility

INVENTOR(S): Chen, Zunxuan; Hu, Erding; Westfall, Timothy D.;

Wibberley, Alexandria

PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT 1	NO.			KIND DATE			APPLICATION NO.					DATE				
WO	2003	 0926	 87		A1	_	 2003	1113		WO 2	003-	 US13	 385		2	0030	430
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NΙ,	NO,	NZ,	OM,
		PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ΤJ,	TM,	TN,	TR,	TT,
		TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW					
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	HU,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	SI,	SK,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG	
AU	2003	2371	31		A1		2003	1117		AU 2	003-	2371	31		2	0030	430
EP	1503	758			A1		2005	0209		EP 2	003-	7365	12		2	0030	430
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	
JP 2005532305					T 20051027			7 JP 2004-500871						2	0030	430	
US 20050159333					A1	A1 20050721		1 US 2004-513139				39		20041029			
ORIT	ORITY APPLN. INFO.:								•	US 2	002-	3775	04P	]	P 2	0020	502
									WO 2003-US13385				385	W 20030430			430

- AB A method for modulating bladder smooth muscle contractility comprises contacting a polypeptide in a ROCK pathway with a compound that modulates an activity of the polypeptide. Also disclosed are methods for treating lower urinary tract disorders and overactive bladder.
- IT 105628-07-7
  - RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    - (Rho-associated kinase (ROCK) pathway polypeptide modulators for modulating bladder smooth muscle contractility)
- RN 105628-07-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT: 2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 33 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:242168 CAPLUS

DOCUMENT NUMBER: 138:248537

TITLE: Medicinal composition for prevention and treatment of

cerebrovascular disorder and heart diseases

INVENTOR(S): Toshima, Yoshinori; Hitomi, Asako; Satoh, Shinichi;

Ikegaki, Ichiro

PATENT ASSIGNEE(S): Asahi Kasei Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	PATENT NO.								APPLICATION NO.						DATE			
WO	2003	0244!	57		A1		20030	0327	Ī	WO 20	002-	JP77:	12		20	0020	730	
	W:	ΑE,	AG,	AL,	AM,	AT,	ΑU,	AΖ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MΖ,	NO,	NΖ,	OM,	PH,	
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	
		UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW								
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TΖ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,	
		KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
		FI,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	
		CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG				
AU	20023	36239	90		A1		20030	0401	i	AU 20	002-3	36239	90		20	0020	730	
EP	14260	051			A1		20040	0609	]	EP 20	002-	75178	84		20	0020	730	
EP	1426	051			В1		20080	0716										
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	SK			
AT	40108	82			Τ		20080	0815	i	AT 20	002-	75178	34		20	0020	730	
JP	41940	095			В2		20083	1210	· ·	JP 20	003-	5285	53		20	0020	730	
US	20040	0242	565		A1		20041	1202	1	JS 20	004-	48869	99		20	0040	706	
RIORIT	RITY APPLN. INFO.:							JP 2001-274846				46	Ì	A 20	0109	911		
									WO 2002-JP7712				12	W 20020730			730	
										WO 21	002-	JP77:	12	Ţ	W 20	0020	730	

OTHER SOURCE(S): MARPAT 138:248537

AB This document discloses a medicinal composition comprising: (a) an isoquinolinesulfonylhomopiperazine derivative (Markush structure given) and (b) at least one member selected from the group of acceptable drugs such as a cerebral vasodilator, vasodilator agent, brain-protective agent, cerebral metabolism activator, anticoagulant agent, platelet aggregation inhibitor, thrombolytic agent, agent for mental disorders, hypotensive drug, remedy for angina pectoris, diuretic agent, cardiotonic, antiarrhythmic agent, hyperlipemia remedy, and immunosuppressant. The above composition is useful as a preventive or remedy for cerebrovascular disorders and heart diseases. Formulations are given.

IT 103745-39-7 105628-07-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

 $({\tt medicinal}\ {\tt composition}\ {\tt comprising}\ {\tt isoquinolinesulfonylhomopiperazine}\ {\tt derivative}$ 

and other therapeutic agent for prevention and treatment of cerebrovascular disorder and heart diseases)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 34 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:444494 CAPLUS

DOCUMENT NUMBER: 137:28321

TITLE: Use of certain isoquinolinesulfonyl compounds for the

treatment of glaucoma and ocular ischemia

INVENTOR(S): Hellberg, Mark R.; Kapin, Michael A.; Desantis, Louis

M., Jr.

PATENT ASSIGNEE(S): Alcon Laboratories, Inc., USA

SOURCE: U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 77,575.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PAT	PATENT NO.				KINI	)	DATE		APPLICATION NO.					D	ATE		
	6403	 5an			 В1	_	2002	0611		2001-		 ) 1		2	0010	731	
	9723				A1		1997			1996-					9961:		
WO			O.7						WO	1996-	-05201	L9 /		Τ:	9961.	220	
							MX,			D 0D		T. CT	T TT	B.CO	NTT	D.III	о п
***		•	BE,	CH,		,	•	•	FR, G		•		LU,		•	•	SE
	6271				В1		2001	080/		1999-			_		9990:		
PRIORITY	APP	LN.	INFO	.:						1995-					9951		
										1996-					9961:		
									US	1999-	-77575	5	I	A2 1:	9990:	119	

OTHER SOURCE(S): MARPAT 137:28321

AB Isoquinolinesulfonyl compds. are used in ophthalmic compns. to treat glaucoma or other ischemic-borne ocular disorders, e.g. retinopathies or optic neuropathies. These compds. vasodilate ocular blood vessels, lower IOP and prevent or reduce the progression of visual field loss. Preparation and testing of 1-(5-isoquinolinesulfonyl)-2,5-dimethylpiperazine are described.

IT 103745-39-7, Fasudil 105628-07-7, Fasudil hydrochloride
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(isoquinolinesulfonyl compds. for treatment of glaucoma and ocular ischemia)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 35 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:10605 CAPLUS

DOCUMENT NUMBER: 134:66137

TITLE: Protein kinase N inhibitor comprising fasudil INVENTOR(S): Ohashi, Yasuhiro; Konno, Yasuhiko; Miwa, Naoto

PATENT ASSIGNEE(S): Schering A.-G., Germany SOURCE: Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1064944	A1	20010103	EP 1999-250207	19990625
R: AT, BE,	CH, DE, DK	ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,
TE, ST.	I.T. I.V. FT	, RO		

PRIORITY APPLN. INFO.: EP 1999-250207 19990625

- AB Protein kinase N inhibitor or a dual inhibitor of protein kinase N and p160ROCK comprises fasudil (I) or its salts, and pharmaceutical compns. for controlling carcinomatous peritonitis derived from intra-abdominal tumor are disclosed. An example is given showing that I-HCl controls carcinomatous peritonitis derived from intra-abdominal tumor.
- IT 103745-39-7, Fasudil 105628-07-7, Fasudil hydrochloride RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(protein kinase N inhibitor comprising fasudil)

- RN 103745-39-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 36 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:510241 CAPLUS

DOCUMENT NUMBER: 133:344445

TITLE: Protein kinase inhibition by fasudil hydrochloride

promotes neurological recovery after spinal cord

injury in rats

AUTHOR(S): Hara, Masahito; Takayasu, Masakazu; Watanabe,

Kazuhiko; Noda, Atsushi; Takagi, Teruhide; Suzuki,

Yoshio; Yoshida, Jun

CORPORATE SOURCE: Department of Neurosurgery, Nagoya University School

of Medicine, Nagoya, Japan

SOURCE: Journal of Neurosurgery (2000), 93(1, Suppl.), 94-101

CODEN: JONSAC; ISSN: 0022-3085

PUBLISHER: American Association of Neurological Surgeons

DOCUMENT TYPE: Journal LANGUAGE: English

In Japan fasudil hydrochloride (HA1077), a protein kinase inhibitor, is widely administered to prevent vasospasm in patients after subarachnoid hemorrhage. The effects of fasudil on exptl. spinal cord injury (SCI) were investigated and compared with those obtained using methylprednisolone. Spinal cord contusion was induced in rats by applying an aneurysm clip extradurally to the spinal cord at T-3 for 1 min. After injury three groups of rats were treated with i.v. administered saline (control), i.p. administered fasudil (10 mg/kg), or i.v. administered methylprednisolone (four 30 mg/kg injections). Neurol. recovery was evaluated periodically over 1 mo by using a modified combined behavioral scale and histopathol. examination Leukocyte infiltration near the injury site was evaluated by measuring myeloperoxidase (MPO) activity at 24 h. Spinal cord blood flow was measured at intervals up to 3 h after injury by using laser Doppler flowmetry. In rats in the fasudil-treated group significant improvement in modified combined behavioral score was demonstrated at each time point, whereas in the methylprednisolone-treated rats no beneficial effects were shown. In the fasudil-treated group, reduction of traumatic spinal cord damage was evident histol. in the caudal portion of the injured areas, and tissue MPO activity in tissue samples was reduced. Spinal cord blood flow was not significantly different between fasudil-treated and control group rats. Fasudil hydrochloride showed promise of effectiveness in promoting neurol. recovery after traumatic SCI. Possible mechanisms of this effect include protein kinase inhibition and decreased infiltration by neutrophils.

IT 105628-07-7, Fasudil hydrochloride

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(protein kinase inhibition by fasudil hydrochloride promotes neurol. recovery after spinal cord injury in rats)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 37 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:133520 CAPLUS

DOCUMENT NUMBER: 132:171148

TITLE: Sustained release oral preparations of fasudil

hvdrochloride

INVENTOR(S): Sugi, Tomokazu; Nishio, Fumihide PATENT ASSIGNEE(S): Asahi Kasei Kogyo K. K., Japan

SOURCE: PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

							DATE			APPLICATION NO.						DATE	
	2000		33		A1		2000	0224			1999-					19990	804
	RW:	AT, PT,		CH,	CY,	DE,	DK,	ES,	FI,	FR	R, GB,	GR,	IE,	IT,	LU	, MC,	NL,
CA	2334	120			A1		2000	0224	C	CA	1999-	-2334	120			19990	804
CA	2334	120			С		2006	1017									
CA	2553	126			A1		2000	0224	C	CA	1999-	-2553	126			19990	804
EP	1110	553			A1		2001	0627	E	ΞP	1999-	-9350	46			19990	804
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	IT,	LI,	LU,	NL,	SE	, MC,	PT,
		ΙE,	FΙ														
CN	1004	4484	3		С		2008	1224	C	CN	1999-	-8080	09			19990	804
JP	4260	370			В2		2009	0430	J	JΡ	2000-	-5646	36			19990	804
TW	2249	67			В		2004	1211	Γ	'W	1999-	-8811	3576			19990	809
US	6699	508			В1		2004	0302	Ü	JS	2000-	-7018	33			20001	205
US	2004						2004	0708	Ũ	JS	2003-	-7404	41			20031	222
US	7125	567			В2		2006	1024									
US	2006	0280	793		A1		2006	1214	Ü	JS	2006-	-5040	25			20060	815
PRIORITY	APP	LN.	INFO	.:					J	JΡ	1998-	-2366	06		A	19980	810
											1999-					19990	804
									M	VΟ	1999-	-JP41	96	1	W	19990	804
									Ũ	JS	2000-	-7018	33		A3	20001	205
									Ü	JS	2003-	-7404	41		A1	20031	222

Disclosed are sustained release oral prepns. containing at least one active AΒ ingredient selected from the group consisting of fasudil hydrochloride (I) and its hydrate. These prepns. are characterized by containing at least one sustained release coated particle consisting of a core having surface and a film coating the surface of the core; the core containing the above-mentioned active ingredient(s) while the film containing a coating base and a specific insol. substance; and showing a specific elution ratio of the active ingredient(s) when tested by the elution method. By using these prepns., the elution of the active ingredient(s) from the prepns. can be surely controlled and the effects of the active ingredient(s) can be sustained over a long period of time, thereby relieving the burden loaded upon patients due to the administration of drugs and improving the compliance. Also disclosed is a method for evaluating sustained release oral prepns. regarding the ability to release the active ingredient(s). I dissolved in distilled water was sprayed on Nonpareil-105 to obtain granules, i.e. I-coated Nonpareils. Et cellulose dissolved in ethanol was mixed with talc to give a coating solution, which was sprayed onto the above granules to give sustained-release granules. The granules were placed in capsules (containing 80 mg I/each).

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

RN 186694-02-0 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride, hydrate (2:2:1) (CA INDEX NAME)

● HCl

●1/2 H<sub>2</sub>O

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 38 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1999:380689 CAPLUS

DOCUMENT NUMBER: 131:44852
TITLE: Preparation of

1-(5-isoquinolinesulfonyl)homopiperazine with the use

of hydrophobic solvents

INVENTOR(S): Kawakubo, Hiroshi; Takahashi, Nobuyuki
PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11158177	A	19990615	JP 1997-325824	19971127
PRIORITY APPLN. INFO.:			JP 1997-325824	19971127

OTHER SOURCE(S): CASREACT 131:44852; MARPAT 131:44852

AB The title compound (I) was prepared by reaction of 5-isoquinolinesulfonyl halides with homopiperazine in ethers or aromatic hydrocarbons. Thus, reaction of 5-isoquinolinesulfonyl chloride hydrochloride with homopiperazine in EtOAc gave 44% I.

IT 103745-39-7P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of 1-(5-isoquinolinesulfonyl) homopiperazine using hydrophobic solvents)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

L41 ANSWER 39 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:613750 CAPLUS

DOCUMENT NUMBER: 129:298397

ORIGINAL REFERENCE NO.: 129:60725a,60728a

TITLE: Isoquinoline derivatives for treatment of spinal cord

injury

INVENTOR(S): Takayasu, Masakazu; Sato, Shinichi

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

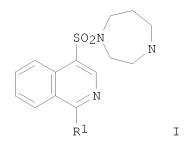
CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 10251150 JP 4011669	A B2	19980922 20071121	JP 1997-60319	19970314
PRIORITY APPLN. INFO.: OTHER SOURCE(S):	22	129:298397	JP 1997-60319	19970314
GT	1.11.11.(1.1.1.1	129.290397		



- AB Isoquinoline derivs. (I; R1 = H or OH) and their salts are claimed for treatment of spinal cord injury. The efficacy of I against spinal injury was tested in animal models, and pharmaceutical injections and tablets of I were formulated.
- IT 103745-39-7 105628-07-7
  - RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (isoquinoline derivs. for treatment of spinal cord injury)
- RN 103745-39-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

SOURCE:

L41 ANSWER 40 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:222961 CAPLUS

DOCUMENT NUMBER: 128:303685

ORIGINAL REFERENCE NO.: 128:60016h,60017a

TITLE: Inhibition of human immunodeficiency virus type 1 replication by a bioavailable serine/threonine kinase

inhibitor, fasudil hydrochloride

AUTHOR(S): Sato, Tsuneo; Asamitsu, Kaori; Yang, Jian-Ping;

Takahashi, Naoko; Tetsuka, Toshifumi; Yoneyama, Akihiko; Kanagawa, Akitaka; Okamoto, Takashi

CORPORATE SOURCE: Department of Molecular Genetics, Nagoya City University Medical School, Nagoya, 467, Japan

AIDS Research and Human Retroviruses (1998), 14(4),

293-298

CODEN: ARHRE7; ISSN: 0889-2229

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Replication of human immunodeficiency virus type 1 (HIV-1) is regulated by a host transcription factor, nuclear factor  $\kappa B$  (NF- $\kappa B$ ).

NF- $\kappa$ B belongs to a group of inducible transcription factors and its activity is regulated by multiple cellular signal transduction pathways, including kinases. These kinases are known to be involved in signal-induced NF- $\kappa$ B activation and in the induction of HIV-1 gene expression from latently infected cells. In this study the authors have

examined the effect of a newly developed serine/threonine kinase inhibitor, fasudil hydrochloride (FH), on the replication of HIV-1. Although FH was initially developed as a compound that inhibited a myosin light chain kinase (MLCK) and had been approved for clin. use in the treatment of vasospasm after subarachnoid hemorrhage, this study shows its efficacy in blocking HIV-1 replication in latently infected patients. When FH was added to monocytic cell lines latently infected with HIV-1, U1 and OM10.1, the induction of HIV-1 replication by TNF- $\alpha$  was blocked at noncytotoxic doses. The IC50 values of HIV-1 induction by FH were 9.3 and 24  $\mu$ M for

NF- $\kappa$ B-dependent gene expression, as examined by the transient luciferase expression assay, the effect of FH was considered to be due to the blocking of the signal transduction pathway of NF- $\kappa$ B activation. Although the in vivo effect of FH in blocking HIV-1 induction is not yet known, these findings indicate the feasibility of clin. use of FH and its derivs. in decreasing viral load to prevent clin. development of acquired immunodeficiency syndrome (AIDS) among HIV-1-infected individuals.

U1 and OM10.1, resp. Because FH could block  $TNF-\alpha$ -induced,

IT 105628-07-7, Fasudil hydrochloride

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibition of human immunodeficiency virus type 1 replication by a bioavailable serine/threonine kinase inhibitor fasudil hydrochloride in relation to blockade of NF- $\kappa$ B signal transduction and AIDS treatment)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 41 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:121231 CAPLUS

DOCUMENT NUMBER: 128:252554

ORIGINAL REFERENCE NO.: 128:49843a,49846a

TITLE: Inhibition of HIV-1 Nef-induced apoptosis of uninfected human blood cells by serine/threonine protein kinase inhibitors, fasudil hydrochloride and

otern kinase inhibitors, lasudii nyo

МЗ

AUTHOR(S): Okada, Harue; Takei, Ryouichi; Tashiro, Masato

CORPORATE SOURCE: Shinjuku-ku, Toyama 1-23-1, Department of Virology 1,

National Institute of Infectious Diseases, Tokyo, 162,

Japan

SOURCE: FEBS Letters (1998), 422(3), 363-367

CODEN: FEBLAL; ISSN: 0014-5793

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

The Nef protein of HIV-1 binds to and induces apoptotic cytolysis of AB uninfected but activated human peripheral blood mononuclear cells (PBMC) and various cell line cells derived from CD4+ T, CD8+ T and B lymphocytes, macrophages, and neutrophils. The Nef-induced apoptosis also occurs with blood cells not expressing CD95 (Fas). The Nef-induced apoptosis as well as Fas-mediated apoptosis was inhibited by acetyl-Try-Val-Ala-Asp-CHO, an  ${\rm IL}{-1}{\beta}$  converting enzyme (ICE) inhibitor. Serine/threonine protein kinase (PK) inhibitors, H-7, fasudil hydrochloride and M3, inhibited the Nef-induced apoptosis, and not the Fas-mediated one, without affecting the cell-binding activity of Nef and Nef-binding capacity of the activated cells. Preincubation of the cells with the drugs before being bound by Nef was required for the inhibition of apoptosis. These results suggest that the PK inhibitors specifically act on a cellular protein involved in the upper stream of signal transduction pathway of the Nef-induced apoptosis, which is different from the Fas-mediated pathway but meets it upstream of ICE. In addition, the drugs suppressed the cellular activation-associated cell surface expression of a putative Nef-binding protein in PBMC, although they had no influence on its expression in cell line cells. These findings suggest the feasibility of clin. use of the PK inhibitors to prevent the development of AIDS by inhibiting the Nef-induced apoptosis of uninfected blood cells.

IT 105628-07-7, Fasudil hydrochloride

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibition of HIV-1 Nef-induced apoptosis of uninfected human blood cells by serine/threonine protein kinase inhibitors, fasudil hydrochloride and M3)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT: 19

19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 42 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:587119 CAPLUS

DOCUMENT NUMBER: 127:268019

ORIGINAL REFERENCE NO.: 127:52215a,52218a

TITLE: Fansudil and related compounds for improvement of

 $\hbox{motor activity in cerebral thrombosis}\\$ 

INVENTOR(S): Otomo, Eiichi; Morohoshi, Toshiro

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

Ι

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09227381	A	19970902	JP 1996-42487	19960229
PRIORITY APPLN. INFO.:			JP 1996-42487	19960229
OTHER SOURCE(S):	MARPAT	127:268019		

O2S N NH

GI

- AB Use of Fansudil and related compds. (I) [ R1 = H or OH] for the improvement of motor activity in patients with cerebral thrombosis is claimed. Injection solns. were formulated containing Fansudil-Fansudil-HCl 10, NaCl 16 and distilled water to 2 mL.
- IT 103745-39-7, Fasudil 105628-07-7, Fasudil hydrochloride RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Fansudil and related compds. for improvement of motor activity in cerebral thrombosis)

- RN 103745-39-7 CAPLUS
- CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

INVENTOR(S):

L41 ANSWER 43 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:526102 CAPLUS

DOCUMENT NUMBER: 127:220471 ORIGINAL REFERENCE NO.: 127:42965a

TITLE: Preparation of nitro compounds for treatment of angina

pectoris and for prevention of restenosis after percutaneous transluminal coronary angioplasty Uchida, Yasuyoshi; Koga, Hiroshi; Ko, Naoki

PATENT ASSIGNEE(S): Chugai Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09202764	A	19970805	JP 1996-43976	19960124
PRIORITY APPLN. INFO.:			JP 1996-43976	19960124

OTHER SOURCE(S): MARPAT 127:220471

R1AR2GR3ONO2 [R1 = (un)substituted Ph, naphthyl, anthryl, other aromatic hydrocarbyl, (un)substituted pyridyl, quinolyl, isoquinolyl, carbazolyl, indoly1, other heterocycly1; A = SO2, O, S, (N-substituted) sulfonamido, amido, thioamido, cyanamido; R2 = C1-10 hydrocarbyl; G = S02, O, S, (N-substituted) sulfonamido, amido, thioamido, cyanamido, amino, cyclic amino; R3 = (un)substituted C1-18 hydrocarbyl (linked via hetero atom)] or their pharmaceutically acceptable salts are prepared Mesylation of 3.0 g 5-chloro-N-(6-hydroxyhexyl)-1-naphthalenesulfonamide in CH2Cl2 in the presence of 4-dimethylaminopyridine at room temperature for 2.5 h gave 3.54 g 5-chloro-N-(6-methanesulfonyloxyhexyl)-1-naphthalenesulfonamide, which (1.77 g) was treated with 1.01 mL 2-aminoethanol in THF at  $70^{\circ}$  for 27 h to afford 920 mg 5-chloro-N-[6-(2-hydroxyethylamino)hexyl]-1naphthalenesulfonamide. The product (200 mg) was treated with urea, fuming HNO3, and Ac20 in CH2Cl2 at room temperature for 4 h to give 60 mg 5-chloro-N-[6-(2-nitroxyethylamino)hexyl]-1-naphthalenesulfonamide nitrate, which at 10-5 M inhibited 52% proliferation of rat vascular smooth muscle cells (A7r5 cells).

IT 103745-39-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of antianginal nitro compds.)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

SOURCE:

L41 ANSWER 44 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:503173 CAPLUS

DOCUMENT NUMBER: 127:126664 ORIGINAL REFERENCE NO.: 127:24317a

TITLE: Pharmaceutical compositions containing

isoquinolinesulfonyl derivatives for the treatment of

glaucoma and ocular ischemia

INVENTOR(S): Kapin, Michael A.; Desantis, Louis M., Jr.

PATENT ASSIGNEE(S): Alcon Laboratories, Inc., USA; Kapin, Michael A.;

Desantis, Louis M., Jr. PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

								DATE						NO.			ATE		
		9723	222			A1			0703					0197			9961	220	
		RW:	AT,	BE,	CH,	DE,	DK	, ES,	FΙ,	FR,	, GE	GR,	, IE,	, IT,	LU,	MC,	NL,	PT,	SE
	CA	2240	271			A1		1997	0703		CA	1996	-224	0271		1	9961	220	
	CA	2240	271			С		2005	1213										
	AU	9714	644			Α		1997	0717		AU	1997	-146	44		1	9961	220	
	AU	7203	26			В2		2000	0525										
											ΕP	1996	-9452	220		1	9961	220	
	EP	8681	86			В1		2005	0302										
		R:	ΑT,	BE,	CH,	DE,	DK	, ES,	FR,	GB,	, GF	R, IT	, LI	, LU,	NL,	SE,	MC,	PT,	
			IE,	FΙ															
	CN	1207	680			А		1999	0210		CN	1996	-1996	673 793		1	9961	220	
	CN	1155	383			С		2004	0630										
	JP	2001	5097	80		T		2001	0724		JΡ	1997	-523	793		1	9961	220	
	JP	3719	609			В2		2005	1124										
	AT	2898	15			T								220					
	ES	2238	702			Т3								220					
								2003						01346					
	TW	2533	45			В		2006			TW	2003	-921	04976		1	9970		
														75					
		1015						2005						710					
		6403	590			В1		2002	0611		US	2001	-9193	301 1P		2	0010	731	
Ι	PRIORIT	Y APP	, LN.	INFO	.:														
														0197					
								4.00			US	1999	-775	75	Ī	A2 1	9990	119	

OTHER SOURCE(S): MARPAT 127:126664

AB Isoquinolinesulfonyl compds. (Markush structure given) are used in ophthalmic compns. to treat glaucoma or other ischemic-borne ocular disorders such as retinopathies or optic neuropathies. These compds. vasodilate ocular blood vessels, lower intraocular pressure and prevent or reduce the progression of visual field loss. Topical administration of  $150\,\mu g$  fasudil hydrochloride (I) to rabbits eyes decreased the intraocular pressure by 14.6% after 1 h. An eye drop contain I 1.5, benzalkonium chloride 0.01, and phosphate buffered saline q.s. 100%.

IT 103745-39-7, Fasudil 105628-07-7, Fasudil hydrochloride RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (pharmaceutical compns. containing isoquinolinesulfonyl derivs. for treatment of glaucoma and ocular ischemia)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 45 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:259764 CAPLUS

DOCUMENT NUMBER: 126:242891

ORIGINAL REFERENCE NO.: 126:46901a,46904a

TITLE: Mucosal preparation containing physiologically active

peptide

INVENTOR(S): Yamamoto, Nakayuki; Ito, Teruomi

PATENT ASSIGNEE(S): Asahi Kasei Kogyo Kabushiki Kaisha, Japan; Hisamitsu

Seiyaku Kabushiki Kaisha; Yamamoto, Nakayuki; Ito,

Teruomi

SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 9706813	A1 19970227	WO 1996-JP2277	19960812
W: CA, CN, JP RW: AT, BE, CH	•	FR, GB, GR, IE, IT,	LU, MC, NL, PT, SE
JP 11292787	A 19991026	JP 1995-208010	19950815
CN 1179723	A 19980422	CN 1996-192821	19960812
EP 845265	A1 19980603	EP 1996-926626	19960812
R: AT, BE, CH	, DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,
IE, FI			
JP 3824023	B2 20060920	JP 1997-509140	19960812
PRIORITY APPLN. INFO.:		JP 1995-208010 WO 1996-JP2277	A 19950815 W 19960812

MARPAT 126:242891 OTHER SOURCE(S):

AB This invention related to a mucosal preparation obtained by blending a physiol. active peptide at least with a sorbefacient and a vasodilatory compound Owing to the combined use of the sorbefacient with the vasodilatory compound, the absorption of any desired physiol. active peptide can be enhanced and thus it can be self-administered to a patient without giving any pain caused by parenteral injection. Therefore, it is highly useful as a preparation of a physiol. active peptide for prolonged administration. As the physiol. active peptide, use can be made of insulin, calcitonin, human PTH, somatostatin, glucagon, etc. As the sorbefacient, use can be made of bile acid salts, cyclodextrin, phospholipids, nonionic surfactants, higher fatty acids, etc. As the vasodilatory compds., use can be made of calcium channel inhibitors, prostaglandin El, isosorbide nitrate, nitroglycerin, etc.

105628-07-7, Fasudil hydrochloride

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sorbefacient and vasodilatory compound in mucosal preparation containing physiol.

active peptide)

105628-07-7 CAPLUS RN

Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride CN (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 46 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:203921 CAPLUS

DOCUMENT NUMBER: 126:203702

ORIGINAL REFERENCE NO.: 126:39303a,39306a

TITLE: Stable fasudil hydrochloride injection solutions in

ampules or syringes

INVENTOR(S): Yamada, Hitoshi; Tsuruqatani, Moryuki; Hiramatsu,

Keiko

PATENT ASSIGNEE(S): Asahi Chemical Ind, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09024085	A	19970128	JP 1995-175010	19950711
JP 3879940	В2	20070214		

PRIORITY APPLN. INFO.: JP 1995-175010 19950711

AB Fasudil hydrochloride injection solns. are filled into ampules or syringes having  $\leq 10\%$  transmissivity for 350 nm light to stabilize the contents.

IT 105628-07-7, Fasudil hydrochloride

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(stable fasudil hydrochloride injections in ampules or syringes)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

L41 ANSWER 47 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:141151 CAPLUS

DOCUMENT NUMBER: 126:157526

ORIGINAL REFERENCE NO.: 126:30467a,30470a TITLE: Preparation of

1-(5-isoquinolinesulfonyl)homopiperazine hydrochloride

hydrates as vasodilators

INVENTOR(S): Kawakubo, Hiromu; Ohno, Masaru

PATENT ASSIGNEE(S): Asahi Kasei Kogyo Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT NO.			KINI	)	DATE		AP:	PLICATION	NO.		DATE		
WO	9702260 W: CN,	 KR,	US	A1	-	1997	0123	WO	1996-JP1	698		1996	0619	
	RW: AT,	BE,	CH,	DE,	DK,	ES,	FI,	FR, G	B, GR, IE	, IT,	LU, N	MC, NL	PT,	SE
JP	09071582			A		1997	0318	JP	1996-147	147		1996	0610	
JP	2899953			В2		1999	0602							
CN	1183782			Α		1998	0603	CN	1996-193	768		1996	0619	
CN	1080721			С		2002	0313							
EP	870767			A1		1998	1014	EP	1996-918	854		1996	0619	
EP	870767			В1		2000	0216							
	R: CH,	DE,	ES,	FR,	GB,	IT,	LI,	NL, S	Ε					
ES	2142065			Т3		2000	0401	ES	1996-918	854		1996	0619	
US	5942505			A		1999	0824	US	1997-930	910		1997	1014	
HK	1013598			A1		2000	0721	HK	1998-112	655		1998	1202	
PRIORIT	Y APPLN.	INFO	.:					JP	1995-167	460	A	1995	0703	
								WO	1996-JP1	698	W	1996	0619	

GI

AB The title compds. (I; n = 0.5-3) containing 2.5-15.5 weight% of water are prepared

Compared with anhydrous 1-(5-isoquinolinesulfonyl)homopiperazine.HCl I has excellent molding characteristics. Thus, it can be shaped into tablets having a sufficient hardness even under a relatively low tableting pressure. The low tableting pressure brings about large advantages, namely, the good elution properties of the tablets, prevention of a mortar

and a pestle from being worn away due to the friction between them in the tableting step, etc.

IT 105628-07-7P, 1-(5-Isoquinolinesulfonyl)homopiperazine hydrochloride 186694-02-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 1-(5-isoquinolinesulfonyl) homopiperazines hydrochloride hydrates as vasodilators)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

## ● HCl

RN 186694-02-0 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride, hydrate (2:2:1) (CA INDEX NAME)

● HCl

●1/2 H<sub>2</sub>O

REFERENCE COUNT: 6

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 48 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:140974 CAPLUS

DOCUMENT NUMBER: 126:171619
ORIGINAL REFERENCE NO.: 126:33169a,33172a
TITLE: Preparation of

1-(5-isoquinolinesulfonyl) homopiperazine hydrochloride

trihydrate

INVENTOR(S): Kawakubo, Hiroshi; Suqi, Tomokazu

PATENT ASSIGNEE(S): Asahi Chemical Ind, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09012573	A	19970114	JP 1995-163341	19950629
JP 3734531	B2	20060111		
ORITY APPLN. INFO.:			JP 1995-163341	19950629

AB 1-(5-Isoquinolinesulfonyl)homopiperazine hydrochloride trihydrate (I), useful for the treatment of cerebral ischemia (no data), is prepared 1-(5-Isoquinolinesulfonyl)homopiperazine hydrochloride was recrystd. from water to give crystals of I. Tablets containing I with high hardness were obtained using low tabletting pressure.

IT 103745-39-7P, Fasudil 105628-07-7P, Fasudil

hydrochloride

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

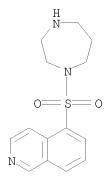
(preparation of isoquinolinesulfonylhomopiperazine hydrochloride trihydrate)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)



L41 ANSWER 49 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:638487 CAPLUS

DOCUMENT NUMBER: 125:265902

ORIGINAL REFERENCE NO.: 125:49373a,49376a

TITLE: Evaluation of fasudil hydrochloride treatment for wandering symptoms in cerebrovascular dementia with 31P-magnetic resonance spectroscopy and Xe-computed

tomography

AUTHOR(S): Kamei, S.; Oishi, M.; Takasu, T.

CORPORATE SOURCE: School Medicine, Nihon University, Tokyo, 173, Japan SOURCE: Clinical Neuropharmacology (1996), 19(5), 428-438

CODEN: CLNEDB; ISSN: 0362-5664

PUBLISHER: Lippincott-Raven

DOCUMENT TYPE: Journal LANGUAGE: English

This is the first report on the evaluation of treatment with fasudil hydrochloride, a novel intracellular calcium antagonist, for wandering symptoms in patients with cerebrovascular dementia by using 31P-magnetic resonance spectroscopy (MRS) and Xe-computed tomog. (CT). The subjects studied were two patients with cerebrovascular dementia who had had frequent wandering episodes. The clin. diagnosis was Binswanger-type cerebral infarction in patient 1 and sequelae of cerebral bleeding and multiple lacunar infarction in patient 2. Treatment with fasudil at 30 or 60 mg/day was given orally for 8 wk. The wandering symptoms disappeared in both patients during the treatment and reappeared a few days after discontinuation of the treatment. Mental tests indicated that memory was mildly improved during the treatment. Pretreatment 31P-MRS findings revealed decreases in relative signal intensities of phosphomonoester and phosphodiesters and an increase in that of mean adenosine triphosphates. After treatment, these findings disappeared. The regional cerebral blood flow values by Xe-CT in both patients did not show significant changes from before treatment to the values after treatment. These results suggest that the efficacy of fasudil for the wandering symptoms and mental function observed in our patients may have been related to a direct effect on intracellular energy metabolism

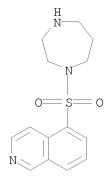
IT 105628-07-7, Fasudil hydrochloride

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(fasudil hydrochloride treatment of wandering symptoms in cerebrovascular dementia with 31P-magnetic resonance spectroscopy and Xe-computed tomog.)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)



L41 ANSWER 50 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:574266 CAPLUS

DOCUMENT NUMBER: 125:264822

ORIGINAL REFERENCE NO.: 125:49105a, 49108a

TITLE: Development of fasudil hydrochloride (Eril). A new

protein kinase inhibitor

AUTHOR(S): Sone, Takanori

CORPORATE SOURCE: Inst. Life Sci. Res., Asahi Chem. Ind. Co., Ltd.,

Shizuoka, 410-23, Japan

SOURCE: Yuki Gosei Kagaku Kyokaishi (1996), 54(9), 794-800

CODEN: YGKKAE; ISSN: 0037-9980

PUBLISHER: Yuki Gosei Kagaku Kyokai DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review with 26 refs. A series of isoquinolinesulfonamide derivs. were shown to possess vasodilatory action.

1-(5-Isoquinolinesulfonyl)homopiperazine hydrochloride (fasudil) had more potent vasodilatory effect to vertebral artery than diltiazem. Fasudil inhibits protein kinase and dilates spastic cerebral arteries in the canine hemorrhage model. In clin. studies with fasudil, administered by i.v. injection to patients who had undergone surgery for subarachnoid hemorrhage, significantly reduced the occurrence of vasospasm.

IT 105628-07-7P, Eril

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(development of fasudil as vasodilator and protein kinase inhibitor)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

L41 ANSWER 51 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:228585 CAPLUS

DOCUMENT NUMBER: 124:250901

ORIGINAL REFERENCE NO.: 124:46217a,46220a

TITLE: Combination drug with immunosuppressive,

cardiovascular, and cerebral activity

INVENTOR(S): Schoenharting, Martin; Muellner, Stefan; Zabel, Peter

PATENT ASSIGNEE(S): Hoechst A.-G., Germany SOURCE: Ger. Offen., 11 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT NO.			KINI	D DATE	APPLICATION NO.	DATE
WO	4430128 9605838 9605838			A2	19960229	DE 1994-4430128 WO 1995-EP3125	
	W: AU, RW: AT,	CA, BE,	CN, CH,	CZ, DE,	FI, HU, JP, DK, ES, FR,	KR, MX, NO, PL, RU, GB, GR, IE, IT, LU,	MC, NL, PT, SE
AU	9533829 697311			В2	19981001		
	777482	D.F.		В1	20011114	EP 1995-930441	
AT ES FI US	10504550			T T T3 A A	19980506 20011115 20020116 19970221 19991123	FI 1997-747 US 1997-793417	19950807 19950807 19950807 19970221 19970225
	Y APPLN.			RI	20020108	DE 1999-357230 DE 1994-4430128 WO 1995-EP3125 US 1997-793417	A 19940825 W 19950807

AB A combination of a phosphodiesterase inhibitor or adenylate cyclase activator which elevates the intracellular cAMP content with a compound which lowers the effective intracellular Ca2+ content, administered simultaneously, sep., or at timed intervals, shows synergistic enhancement of immunosuppressive, cardiovascular, and cerebral activity. Thus, dibutyryl cAMP and the Ca2+ channel blocker nifedipine synergistically inhibited release of interleukin 2 and  $\gamma$ -interferon by phytohemagglutinin-activated human peripheral blood mononuclear cells.

IT 103745-39-7, HA 1077

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(combination drug with immunosuppressive, cardiovascular, and cerebral activity)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 52 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:528917 CAPLUS

DOCUMENT NUMBER: 122:274111

ORIGINAL REFERENCE NO.: 122:49841a,49844a

TITLE: Antiinflammatory agents containing

isoquinolinesulfonamides

INVENTOR(S): Yamamoto, Yasuhiro; Sasaki, Taiji; Nozawa, Ryuji

PATENT ASSIGNEE(S): Asahi Chemical Ind, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

Ι

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07041424	A	19950210	JP 1993-185734	19930728
PRIORITY APPLN. INFO.:			JP 1993-185734	19930728
GI				

AB Antiinflammatory agents contain substituted isoquinolinamides I [R1 = H, C1, OH; when R1 = H, A = unsubstituted C2-6 alkylene, C2-6 alkylene in which H bound to C is substituted with C1-10 alkyl, aryl, or aralkyl; R2 = H; R3 = H, C1-6 linear or branched alkyl, aryl, aralkyl; R4 = H, C1-6 linear or branched alkyl, aryl, aralkyl, benzoyl, cinnamyl, cinnamoyl, furoyl, PhCH(OR5)CH2 (R5 = C1-6 linear or branched alkyl), C:(NR6)NHR7 (R6, R7 = H; R6R7 may form C2-4 alkylene); R2R3 may form (C1-10 alkyl-, Ph-, or benzyl-substituted) C≤4 alkylene; NR3R4 may form (O-containing) heterocyclyl; when R1 = Cl or OH, A = unsubstituted C2-6 alkylene, C2-6 alkylene in which H bound to C is substituted with C1-6 alkyl; R2, R3 = H, C1-6 linear or branched alkyl; R2R3 may form ethylene in which H atom bound to C may be substituted with C1-6 alkyl, trimethylene; R4 = H, C1-6 alkyl, amidino] or their salts as active ingredients.

 $1-(5-{\rm Isoquinolinesulfonyl})\,{\rm homopiperazine-HCl}$  salt (II) inhibited phorbol ester-induced O2- production by human leukocytes with 50% inhibitory concentration of

 $15~\mu M.~$  II showed LD50 of 300 mg/kg p.o. in mice. Tablets containing II 30, crystalline cellulose 40, lactose 103, Mg stearate 2, and CM-cellulose Ca 5 mg were formulated.

IT 105628-07-7, 1-(5-Isoquinolinesulfonyl)homopiperazine hydrochloride

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antiinflammatory agents containing substituted isoquinolinesulfonamides) 105628-07-7 CAPLUS Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride RN

CN (1:1) (CA INDEX NAME)

INVENTOR(S):

L41 ANSWER 53 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:418054 CAPLUS

DOCUMENT NUMBER: 121:18054
ORIGINAL REFERENCE NO.: 121:3319a,3322a

TITLE: Preparation of isoquinolinesulfonamides as platelet

aggregation inhibitors Seto, Minoru; Sato, Tae

PATENT ASSIGNEE(S): Asahi Kasei Kogyo K. K., Japan

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND I	DATE	APPLICATION NO.	DATE
WO 9405290	A1 3	19940317	WO 1993-JP1209	19930827
W: CA, FI, KR,	US			
RW: AT, BE, CH,	DE, DK,	ES, FR, GB	, GR, IE, IT, LU,	MC, NL, PT, SE
JP 06080569	Α :	19940322	JP 1992-235841	19920903
PRIORITY APPLN. INFO.:			JP 1992-235841	A 19920903
OTHER SOURCE(S):	MARPAT 1	121:18054		

A platelet aggregation inhibitor, useful as antithrombotics, contains an isoquinolinesulfonamide derivative [I; R1 = H, C1, OH; when R1 = H, A = C1-6 alkylene which may be substituted by alkyl, cinnamyl, Ph, benzyl; R2 = H, C≤6 cycloalkyl; R3 = H, linear or branched C1-6 alkyl, cinnamyl, Ph, benzyl, or alternatively R2 and R3 may be combined together to represent  $C \le 4$  alkylene; R4 = H, linear or branched alkyl C1-6alkyl, Ph, benzyl, Bz, cinnamyl, cinnamoyl, furoyl, CH2CH(OR5)Ph, C(:NR6)NHR7, or alternatively R4 may be bonded to R3 directly or through O atom to form together the N atom a 5- to 6-membered heterocyclic ring; R5 = C1-6 alkyl; R6, R7 = H, Me, or alternatively R6 and R7 may be combined together to represent C2-4 alkylene] or a salt thereof is described. 1-(5-Isoquinolinesulfonyl)homopiperazine hydrochloride (II) showed IC50 of  $20~\mu\text{M}$  for inhibiting human blood platelet aggregation induced by ADP and 9,11-dioxy-9 $\alpha$ ,11 $\alpha$ -(methanoepoxy)prostaglandin F2 $\alpha$ (U-46619). Tablets were formulated each containing II 30, crystalline cellulose

40, lactose 103, Mg stearate 2, and CM-cellulose Ca salt 5~mg.

105628-07-7, 1-(5-Isoquinolinesulfonyl)homopiperazine

Page 103

hydrochloride

RL: BIOL (Biological study)
 (blood platelet aggregation inhibitor containing)

RN 105628-07-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 54 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1992:255586 CAPLUS

DOCUMENT NUMBER: 116:255586

ORIGINAL REFERENCE NO.: 116:43339a,43342a

TITLE: 5-Isoquinolinesulfonamide derivatives. III.

Synthesis and vasodilatory activity of

1-(5-isoquinolinesulfonyl)piperazine derivatives

AUTHOR(S): Morikawa, Anri; Sone, Takanori; Asano, Toshio

CORPORATE SOURCE: Life-Sci. Inst., Asahi Chem. Ind. Co., Ltd., Nobeoka,

882, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1992), 40(3),

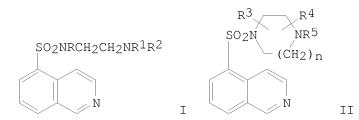
770-3

CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 116:255586

GΙ



AΒ On the basis of a hypothesis that cyclization and alkylation of the diamine part of aminoalkylisoquinolinesulfonamides, e.g., I (R,R1,R2 = H, alkyl), would give highly active compds., a new series of 5-isoquinolinesulfonamide derivs., II (R3 = H, 2-, 3-Me; R4 = H, 3-, 5-Me; R5 = H, alkyl, aryl, acyl, n = 1,2) were prepared from cyclic diamines. Their vasodilating effects were subsequently evaluated in vivo according to the increase in arterial blood flow after injection locally into the femoral and/or vertebral arteries of dogs. Cyclization of the diamine structure in I gave very potent vasodilators II [R3-R5 = H; n = 1 (III), 2 (IV)]. Acylation and sulfonylation of the terminal amino nitrogen afforded much less potent compds. In contrast to the hypothesis, alkylation on the ring carbon and the terminal nitrogen of the cyclic amine afforded less active compds. except for II (R3 = 2-Me, R4 = 5-Me, R5 = H, n = 2) (V). The most active compds., III IV and V showed more potent vasodilating effects and more selective activity in the vertebral artery than either trapidil or diltiazem.

IT 103745-39-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and vasodilating activity of)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX

105628-07-7P ΙT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, acylation, and vasodilating activity of)

RN

105628-07-7 CAPLUS
Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride CN (1:1) (CA INDEX NAME)

L41 ANSWER 55 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1992:99115 CAPLUS

DOCUMENT NUMBER: 116:99115

ORIGINAL REFERENCE NO.: 116:16533a,16536a

TITLE: Effects of HA1077, an intracellular calcium

antagonist, on neurotransmitter metabolism in rat

brain in vivo

AUTHOR(S): Kondoh, Yasushi; Mizusawa, Shigenori; Murakami,

Matsutaro; Nagata, Ken; Nakamichi, Hiroyuki; Watanabe,

Katsuhiro

CORPORATE SOURCE: Dep. Neurol., Res. Inst. Brain Blood Vessels, Akita,

Japan

SOURCE: Metabolic Brain Disease (1991), 6(3), 111-24

CODEN: MBDIEE; ISSN: 0885-7490

DOCUMENT TYPE: Journal LANGUAGE: English

AΒ The effect of HA1077, an intracellular calcium antagonist, on neurotransmitter metabolism in rat brain was investigated in vivo. After administration of HA1077, at doses of 0.1, 0.3, and 3 mg/kg, 5hydroxyindoleacetic acid (5-HIAA) levels increased in most regions except midbrain. In the striatum, parallel increases of both serotonin (5-HT) and 5-HIAA levels were observed at 0.3 mg/kg, but only the 5-HT level increased at 0.1 mg/kg. These results suggest that HA1077 may activate the turnover or synthesis of  $5-\mathrm{HT}$ . After administration of  ${\rm HA1077}$  at 0.3, 1, and 3  ${\rm mg/kg}$ , the dopamine (DA) level was increased in the striatum, but 3,4-dihydroxyphenylacetic acid (DOPAC) and homovanillic acid levels were unchanged. After HA1077 administration at 1 mg/kg, both DA and DOPAC levels increased in the hypothalamus and only DA level increased in the cerebral cortex. By contrast, DOPAC level decreased in the midbrain after HA1077 treatment at 0.1 and 0.3 mg/kg, and in the brainstem at 0.1 and 10 mg/kg. The ratio of [3H]-N-methylspiperone accumulation relative to that in the cerebellum did not change after HA1077 treatment at any of the doses employed. Thus, the effects of HA1077 on neurotransmitter metabolism are complex and vary depending on the dosage and sites of the brain. Although the dose-dependent effects of HA1077 on neurotransmitter metabolism are similar to those of calcium entry blockers, HA1077 can facilitate DA synthesis in the hypothalamus and striatum, unlike the calcium entry blockers.

IT 103745-39-7, HA1077

RL: BIOL (Biological study)

(neurotransmitter metabolism response to, in brain)

RN 103745-39-7 CAPLUS

CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

L41 ANSWER 56 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

1991:178400 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 114:178400 ORIGINAL REFERENCE NO.: 114:29899a

TITLE: Isoquinolinesulfonamides for improvement of brain

function

INVENTOR(S): Asano, Toshio; Yoshida, Koji

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

Ι

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 02256617	 А	19901017	лр 1989-76595	19890330
JP 2720348	B2	19980304	01 1909 70090	19090330
PRIORITY APPLN. INFO.:			JP 1989-76595	19890330
OTHER SOURCE(S):	MARPAT	114:178400		

Isoquinolinesulfonamides I [R1 = H, C1, OH; when R1 = H, then A = (C1-10)AΒ alkyl-, aryl-, aralkyl-substituted) C2-6 alkylene; R2 = H, C1-10 linear or branched alkyl, PhCH2; R3 = H, C1-6 linear or branched alkyl, aryl, aralkyl; R2R3 may form (C1-10 alkyl-, Ph-, PhCH2-substituted) C≤4 alkylene; R4 = H, C1-6 linear or branched alkyl, aryl, aralkyl, Bz, cinnamyl, cinnamoyl, furoyl, PhCH(OR5)CH2, C(:NR6)NHR7; NR3R4 may form (O-containing) heterocyclyl; R5 = lower alkyl; R6 = R7 = H; R6R7 may form C2-4 alkylene; when R1 = C1 or OH, then A = (C1-6 alkyl-substituted) C2-6alkylene; R2, R3 = H, C1-6 linear or branched alkyl; R2R3 may form (C1-6 alkyl-substituted) ethylene or trimethylene; R4 = H, C1-6 alkyl, amidino] or their salts, which have no anesthetic effect, are useful for improvement of brain function. 1-(5-Isoquinolinesulfonyl)homopiperazine.HCl (II) at 100  $\mu M$  increased mitochondria respiration control ratio (state 3/state 4) to .apprx.5.49 in rat brain, vs. no effect, for nicardipine. LD50 of II was 60 mg/kg i.v. and 335 mg/kg p.o. in rats. Tablets were formulated containing II 20, crystalline cellulose 25, lactose 98.5, Mg stearate 1.5, and CMC Ca 5 mg. 105628-07-7 ΤТ RL: PRP (Properties)

(Isoquinolinesulfonamides for improvement of brain function)

RN 105628-07-7 CAPLUS

Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride CN

# (1:1) (CA INDEX NAME)

lacktriangle HCl

L41 ANSWER 57 OF 57 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1987:32864 CAPLUS

DOCUMENT NUMBER: 106:32864

ORIGINAL REFERENCE NO.: 106:5507a,5510a

TITLE: Substituted isoquinolinesulfonyl compounds

INVENTOR(S): Hidaka, Hiroyoshi; Sone, Takanori

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 85 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 187371	A2	19860716	EP 1985-116520	_	19851223
EP 187371	A3	19861217			
EP 187371	B1	19910619			
R: AT, BE, CH,	DE, FR	, GB, IT, LI	, LU, NL, SE		
JP 61152658	A	19860711	JP 1984-273908		19841227
JP 04081986	В	19921225			
JP 61227581	A	19861009	JP 1985-68512		19850402
JP 05003851	В	19930118			
AT 64598	T	19910715	AT 1985-116520		19851223
US 4678783	A	19870707	US 1985-813973		19851227
US 4678783	B1	19950404			
PRIORITY APPLN. INFO.:			JP 1984-273908	Α	19841227
			JP 1985-68512	Α	19850402
			EP 1985-116520	Α	19851223
OTHER COHROL (C).	CACDEA	OT 10C.220C4	. MADDAT 100.22004		

OTHER SOURCE(S): CASREACT 106:32864; MARPAT 106:32864

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The title compds. I [R1 = H, C1, OH; R2R3 = (un)substituted ethylene or trimethylene; R2, R3 = H, C1-6 alkyl; A = (un)substituted C2-6 alkylene; R4 = H, C1-6 alkyl, amidino] and their salts, useful for treatment of circulatory organ diseases, were prepared Thus, 1-chloroisoquinoline was reacted with fuming H2SO4 and the sulfonic acid formed was converted to the sulfonyl chloride which was reacted with a diamine to give N-(4-aminobutyl)-1-chloro-5-isoquinolinesulfonamide (II). In tests on relaxation of mesenteric artery II showed an ED50 of 7  $\mu$ M.

IT 103745-39-7P 105628-07-7P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

RN

CN

BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of, as drug)
103745-39-7 CAPLUS
Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]- (CA INDEX NAME)

RN 105628-07-7 CAPLUS
CN Isoquinoline, 5-[(hexahydro-1H-1,4-diazepin-1-yl)sulfonyl]-, hydrochloride (1:1) (CA INDEX NAME)